







#### ART DEPT.

720 B365 222-915

### SEATTLE PUBLIC LIBRARY

Please keep date-due card in this pocket. A borrower's card must be presented whenever library materials are borrowed.

REPORT CHANGE OF ADDRESS PROMPTLY







Tomb in the Crypt of the Church of the Transfiguration; Nijui-Novgorod,

## THE AMATEUR'S GUIDE

TO

## ARCHITECTURE

#### By S. SOPHIA BEALE

AUTHOR OF "THE LOUVRE," ETC.



WITH NUMEROUS ILLUSTRATIONS

Edinburgh JOHN GRANT

31 GEORGE IV. BRIDGE

1910

8/8

PRINTED BY OLIVER AND BOYD EDINBURGH

9.00 0.00

MRAS

APR 2 9 1935

#### Dedicated

IN LOVING MEMORY
TO MY FATHER,

WHO FIRST TAUGHT ME TO LOVE THE BEAUTIFUL

ART DEPARTMENT

222915



#### PREFACE.

THE contents of this little book originally formed the substance of some lectures which were delivered to my Art pupils, girls between the ages of twelve and eighteen. Finding in the course of my daily teaching that so many even of the older girls with whom I came in contact knew little or nothing about Architecture, it occurred to me that some addresses, putting the subject simply, and in a very elementary form, might be of use to them.

Architecture is, of course, a very wide subject, and to treat it fully I should be quite incapable. But just as every educated person ought to know something of foreign languages, so he ought to have some knowledge of the different schools of Painting, and of the elements of Architecture. A fact which came under my own observation will illustrate the utter ignorance that may exist in a well-educated person's mind upon this Art.

During my visit to Venice, I happened to be talking to some newly arrived English girls at the hotel, and, mentioning the glories of San Marco, one of them naively asked, "If it were the English Church?" Of course, I do not for one moment mean to imply that many girls of eighteen who had passed through a high school, or had been well taught by an educated governess, would be in this hapless state of ignorance; but there are different degrees of ignorance as there are different degrees of knowledge, and, although most persons may know a Classic from a Gothic building, they may not see the difference between the style of the Nave of Westminster Abbey and that of the Chapel of Henry VII.

I have no more desire to turn every girl into an architect than I have to make them all professional painters. The utmost I hope or wish to do is to give them some over of Art, which will enable them to take an interest in the subject when they travel, or walk about London, or turn over the pages of a magazine or a review; which will, in fact, make them intelligent amateurs in the true sense of the word—lovers of Art, not its perverted sense of bad workman do bling in Art. This may not be a high ideal and some persons may object to what they contemptuously

call a "smattering" of a subject. But life is not long enough to learn everything perfectly, nor, in such a subject as Architecture, is it even needful. To an amateur a thorough knowledge of the art of construction is no more necessary for the due appreciation of a beautiful building than a knowledge of physiology, or of the chemistry of colours, is necessary for .he enjoyment of a noble statue or of a fine picture.

Far be it from me to advocate superficial instruction of any kind. Whatever is taught ought to be taught thoroughly; but the power of drawing a china tea-pot correctly, and the knowledge that is indispensable before a good study from a living model can be made, are two totally different things; and the same rule applies to other branches of instruction. That children should learn a variety of subjects as thoroughly as time will permit, is quite right; but when they are grown up, it is wise to let them pursue to the uttermost the one study which their souls love, and put the less congenial ones aside. If we learn to do one thing tolerably well, we shall accomplish as much as ordinary human nature is capable of; but that is no reason why we should not have some elementary acquaintance with divers other subjects. A highly cultivated human being ought

to have sufficient knowledge upon every subject, to enable him to appreciate good work of all kinds, and to sympathise with the worker.

If, therefore, in sending this little book out into the world, I can give my young readers some slight knowledge of Architecture—just a peep into it, as it were—I shall feel I have done something towards helping them to enjoy great monuments of Art more than they might otherwise have done; and it surely must be better to know a little about buildings which have fired the enthusiasm of men and women for hundreds of years, than to be in a state either of hopeless ignorance, or of contented apathy.

Should any of my readers require a wider knowledge of the subject they cannot do better than study the works of the late John Henry Parker and James Ferqusson, to which I am indebted for much of ... y information.

S. S. B.

Albany Street, London. Sept., 1887.

## CONTENTS.

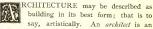
PAGE
PART I.—INTRODUCTORY. GENERAL OUTLINES . I—II
PART II. DIV. I.—TP BEATED, OR BEAM ARCHI- TECTURE . 12-58
<ol> <li>Egypt — II. Chaldaea, Assyria, and Persia — III. India — IV. China — V. Japan — VI. Asia Minor—VII. Greece—VIII. Sicily.</li> </ol>
PART II. DIV. II ROUND-ARCHED ARCHITECTURE 59-115
<ol> <li>Etruria and Rome—II. Early Christian Churches —III. Byzantine Churches—IV. Romanesque Churches—V. Norman—VI. Saracenic.</li> </ol>
PART II. DIV. IIIPOINTED, OR GOTHIC ARCHI-
TRCTURE
PART II. DIV. IV.—RENAISSANCE ARCHITECTURE 158—173
PART II. DIV. IV.—RENAISSANCE ARCHITECTURE 158—173



# THE AMATEUR'S GUIDE TO ARCHITECTURE.

#### PART 1.

INTRODUCTORY.



say, artistically. An architect is an artist, whereas a builder is merely a workman carrying out another person's ideas. In former







Doors and Window.

times the probability is that every builder was an artist; but it is not so now, and many an architect, so called, is everything but an artist.

#### 2 The Amateur's Guide to Architecture.

All buildings may be classed under one of four great divisions.

1st Division. What is called Architecture of the Beam, in which all doors, windows, or







Italian Shell Ornament.

openings of any kind are spanned by a straight beam. This division includes the buildings of the Egyptians, the Assyrians, the Persians, and the Greeks.

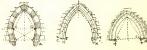


Arch and Beam.

and Division. Architecture of the Round Arch. This group includes all buildings where these same openings are spanned by a Semi-circular Arch. The Assyrians seem to have been the first people employing the arch, and the Etruscans the next. The Romans adopted it later

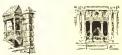
on, and used it with the beam style of the Greeks. The early Christian builders in the West, and the various branches of the Church in the East also used it. The latter styles are termed Romanesque, Norman, and Byzantine.

3rd Division. Architecture of the Pointed Arch. In this division are comprised all buildings in which the Pointed Arch is used, and includes Mohammedan Architecture in the East,



Moorish. Lancet. Early English.

and most Western buildings from the twelfth to the fifteenth centuries. This is called Pointed, or, vulgarly, Gothic Architecture.



Italian Balconies (Renaissance).

4th Division. The Renaissance, which includes

#### 4 The Amateur's Guide to Architecture.

all buildings erected after the fifteenth feetury. This style is called Renaissance because it is a revival of the Classic Orders, with certain alterations in the ornament and details.

Every building is made up of six parts:-







rians of Staucase

1st, the floor, or plan. 2nd, the walls.

3rd, the roof.

4th, the openings: windows, doors, &c.

5th, the columns, or other supports. 6th, the ornaments and decorations.



It is by the style of these various parts that a building is classed in one of these four great divisions.

It is easy to study the difference between the

Beam and the Arched styles by comparing the pictures of the Parthenon or any other Greek





Roofs.

temple, and those of the Colosseum at Rome; or nearer at home, by taking a look at the British





Openings.

Ornament.

Museum, which is a poor copy of a Greek temple, and the Marble Arch, which is meant





Supports.

Greek Portico.

to be like the Roman triumphal arches. In ancient times the style of building was always

#### 6 The Amateur's Guide to Architecture.

suitable to the climate, and constructed out of the materials to be found in the country. Thus, in Greece, marble was used, and the system of



Roman Colonnade.

building deep porticoes, which cast strong shadows and tempered the amount of light admitted, suited the warm and clear atmosphere



Flat Roof.

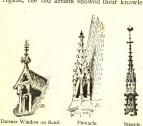
Steep Roofs.

of Greece. In England, marble is scarce, and our sun scarcer; hence the fashion of building Greek temples of brick covered over with stucco is bad, as being sham, and the necessity of entirely enclosing the roof, and of making numberless windows for light, ends in doing away with the characteristics of the Greek style.

The simplicity of Greek buildings requires strong effects of light and shade, only to be had in a sunny country. If you want to see how gloomy such a building can look without such effects, you have only to walk to the British Museum, that dismallest of dismal London buildings. On the other hand, Westminster Above Church, with its mass of ornament, exactly suits our dirty and dingy atmosphere.

You will find also that the old builders always knew the kind of roof which was best suited for the country. Thus, in the south, where there is no snow, they are invariably flat; but in the north, where snow abounds, they are pointed, so that the rain or snow may easily fall off. Another difference in the buildings of hot and cold countries is, that in the former, most attention was paid to the interior, while in the latter the exterior was the most ornamented. In Greece, Persia, Egypt, Spain, and Italy, churches and temples are plain outside, the sun giving light and beauty even to flat walls. In all the northern countries, the exterior received an immense amount of ornament, as well as the towers, steeples, pinnacles, and high-pitched roofs. In the windows, also, we see the old

architects' wisdom. In countries where light is abundant and glare excessive, there are scarcely any, as in St. Mark's, Venice, and St. Sophia, Constantinople; but in our northern country we find some churches a mass of windows, as Salisbury Cathedral and Westminster Abbey. Again, the old artists showed their knowledge



in making the style suitable to the material. Where granite was found, the buildings are massive and simple, it being difficult to work. On the other hand, when they had soft stone for use, we find the carving very elaborate. Where stone was scarce they employed brick, not stuccoed over to look like stone, as in the

Regent's Park and Pimlico, but honest, visible brick, as may still be seen in Holland and North Germany. Where stone and brick were both scarce, and forests plentiful, they used wood, as in Sweden and Norway, where the buildings have a character of their own, and do not pretend to be anything but wooden. A golden motto for Architecture, as for everything else, is that it should never try to appear what it is not. To

make a brick building look like a stone one is as bad as to make a fire-stove look like a greenhouse. There is a place for everything as well as a time for everything; and to put plants at the foot of a chimney, where they are in a draught, in



Timber Turret.

the dark, and subject to a downpour of blacks, shows no love for living things. It is nearly as bad as stuffing our grates with shavings and paper roses, or rural picture screens. Why should we be ashamed of letting people see that there is a place in which to make a fire when we want it? The shame really consists in our not knowing how to make a grate pretty in itself. Go into an old Elizabethan or Francis I. house, and the first thing you will remark is the beauty





Natural and Conventional Lilies.



Natural and Conventional Wild Roses.

of the chimney-pieces, with great wrought-iron dogs for supporting the huge logs of wood. If the old builders had burnt coal, depend upon it they would have found out how to make a grate ornamental, for there was no part of a building too insignificant for their care. Shams belong





French Chimneypiece.

Fire-dog.

to modern times, whether it be the sham of trying to appear grander than we are, or the sham of making a drinking-fountain look like a chapel, or the sham of making woollen stuffs to mittate silk ones. True Art consists in making a design which is suitable to its purpose.



#### PART II. DIV. T.

#### TRABEATED, OR BEAM ARCHITECTURE

#### CHAPTER I.

#### EGVPT.

THE earliest buildings which remain to our time are the Egyptian; but they are so perfect in



Pyramids.

their construction that it is thought they are by no means the first buildings of that country, although they date back to about 3500 B.C. These are the

Pyramids, which were erected as Tombs for the kings during what is called the fourth dvnastv.

As the Egyptians reckoned by their dynasties, and as their history extends much farther back than that of any other people, it is exceedingly



difficult to arrive at positive dates. All we know is, that the Great Pyramids were some fifteen hundred years old when Thebes was in its glory. You may, some of you, have seen a picture by Mr. E. J. Poynter, called "Israel in Egypt," which was supposed to represent the Hebrews as helping to build the Pyramids. It was exhibited some twenty years ago, but recent researches have proved it to be a picturesque myth. The great oppressor of the Hebrews was Rameses II., the third king of the nineteenth dynasty; and no doubt the city of Zoan, which he rebuilt, was the work of the Israelites' forced labour. But the Pyramids of Gizeh had been where they now are some sixteen hundred or two thousand years before the time of Moses; that is to say, as long a time as separates us from the birth of Christ. Now just try and realise this. Think of the age of the Tower of London-about eight hundred years more or less. Go back another eight hundred or thousand years, and we come to the time of St. Paul. About eight hundred years or more before St. Paul's birth, Homer is supposed to have written, and then Thebes had been declining for three hundred years, and the Temple of Karnak was a thousand years old; that is to say, as old, or older, in the time of Homer, as the Tower of London now

is. "Thebes was a great city before the time of Abraham; and Thebes was modern as compared with Memphis, the northern capital of ancient Egypt, and near which were built the Pyramids of Gizeh. Think of them as ancient buildings, not only when Joseph lived, but during the life of the Patriarch Abraham. Some five dynasties of kings at least had arisen and had passed away since they were built, when Abraham first saw them." And not only did these early kings build Pyramids, but they constructed a whole system of dykes, and canals, and locks, and reservoirs.

It must not be imagined that this is all mythical. The stones of Egypt confirm the Bible narrative, and on the Temple of Karnak is graven the story of the plundering of Jerusalem by the later monarch Shishak; while many of the slabs tell us of the doings of Rameses II., whose mummified body was discovered only a short time ago, and may now be seen in the Bulac Museum at Cairo.

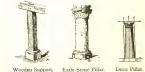
The largest Pyramid is that of Cheops or Suphis. It is almost square at the base, and is about 760 feet at each side, and 484 feet high. It covers a space of 577,600 square feet, which is 58,120 square feet larger than the largest London square, Lincoln's Inn Fields, and 119 feet

higher than St. Paul's. Now if we imagine an enormous pole 119 feet higher than St. Paul's, fixed into the middle of the garden of Lincoln's Inn Fields, with four ropes tied to the top, and then imagine the other end of each rope



tastened to the bottom of the houses at each corner of the square, we shall have some notion of the size of the Great Pyramid. There is little doubt that the whole mass was erected over the tomb of a single king.

At Beni-Hassan, in Central Egypt, the earliest known columns have been discovered, which date back to about 2000 B.C. Whether the idea of a detached column grew out of some early system of stone-pier building is not known; but it probably did. We can imagine the first builders digging away the stone, and putting wooden supports to the roof; then placing beams across the supports, when it probably occurred to



someone to leave blocks of stone as supports. Then somebody else thought of ornamenting the support, and it became a pillar. It must be remembered that in all good Architecture, ornament is simply ornamental construction. If we study Greek or Gothic buildings, we shall find that ornament is never used as mere ornament. We might chip off all the decorations of a Greek temple, or of a Gothic church, and the shell would have exactly the same form as it now has. In bad Architecture it is just the opposite, as in some Roman buildings.

The Temple of Beni-Hassan is the parent of the first Greek style, the Doric, which appeared







The Great Sphinx.

in Greece some fourteen hundred years later. Most of the Temples of Egypt which have been discovered are of this date, some 2000 B.C., com-





Obelisk.

monly called the twelfth dynasty. Many of them were built in the rock, with a façade or pylon approached by an avenue of sphinx, and obelisks were placed hard by as ornaments. Colour was used throughout, but most of the ornamentation was in the interior. The Temples consisted of a series of halls and dwelling-rooms, and, as in the case of our own abbeys, they were constantly being enlarged and added to. The Temple



Egyptian Ornament.

of Karnak was 1,200 feet long and 348 feet wide, about double the size of St. Paul's: but it was not

all used for religious purposes. As in the abbeys, priests and persons

holding office in the temple lived within its precincts; the temples were in fact, like the abbeys, almost little towns. Remember that we miscall Westminster, the abbey; it is really the abbey church. The abbey itself consisted of what is now the church and

the cloisters, part of the school, Dean's Yard, and many of the neighbouring streets-in fact, the space between the Broad Sanctuary, College Street, Great Smith Street, and Abingdon Street. So it was with the Egyptian Temples.



Egyptian Doorway.

One peculiarity of most Egyptian buildings is , that the walls and doorways recede at the top. The door of Christchurch, Albany Street, Regent's Park, is built in this fashion; and in

Piccadilly is an Egyptian Hall. But the Crystal Palace has an example of a better kind: a reproduction of a Temple, with its painted decoration and rows of sphinx. The great statues of Memnon, and part of the Egyptian Court were destroyed by the fire a few years ago; but some portions of it remain. The obelisk on the Embankment, and the one in Paris, on the Place de la Concorde, are of the time of Thothmes III., of the eighteenth dynasty.

ORNAMENTATION OF EGYPTIAN CAPITALS.







In their carvings these early builders seem to have imitated natural foliage as much as the Mediæval artists. Some of the columns represent a bundle of reeds or lotus-stalks, with a flower at the top for a capital, in one case closed, in another, spread open; and we also frequently find the leaves of palm-trees as capitals. All Egyptian ornament is conventionalised; that is to say, they drew people, plants, and buildings as they would appear flattened. If you paint a flower as a picture, you try to

make it stand out as in Nature, and to look round; so too in painting a face. If you work from a model, and your picture looks flat, which it sometimes does, it is an accident over which you have no control; and, in sketching from



Nature, different objects have an unpleasant way sometimes of looking all on one plane; but you do not mean to conventionalise, as the artist in black-paper profiles does. On the other



Laurel-leaf Ornament.



rcose---conventionar

hand, when you embroider an altar-cloth with lilies or roses, you make your flowers at the top of a stalk, with leaves at regular intervals on each side, as a real lily or rose never, by any chance, could grow. This is conven-

tionalising (see page 10). If you go to the British Museum and look at Egyptian wallpaintings, you will find that the figures are all in profile and flat; but although you see only one side of the body, and the face

in profile, you see both legs and both arms. And there is also a strong family likeness in all Egyptian decorations; there seems to have surrounding been a sort of code, which all artists were compelled to follow, just as

the religious painters in the East are still, in these days, obliged to adhere to the rules laid down centuries ago by church decorators. The types were decided upon for the different Saints in the fourth or fifth centuries, and

in the East they are still the same. The mosaics of Ravenna, which were executed in the fifth century, are very similar in treatment to those in modern Eastern churches; whereas in the West there is little resemblance between Ravenna work of the fifth century and rounding Saint. Florentine of the thirteenth century. This may



be studied at the National Gallery, where you can compare an early Florentine Madonna and a Raffaello. One is a conventional rendering of the ideal of the Divine Mother, with the nimbus and star; the other is a natural study of a mother and her infant. In the Egyptian slabs you see all the attitudes more or less alike; but some men are coloured black, some yellow, and some red; which was a conventional manner of showing the difference between the Negro, the Asiatic, and the Egyptian.

As regards material, the Egyptians employed granite, stone, and brick; and although the invention of the arch is generally accorded to the Assyrians and Romans, we find the germs of it in some of the sixth dynasty Tombs, very little later than the Pyramids.



Egyptian Stela.

#### CHAPTER II.

# CHALDÆA, ASSYRIA, AND PERSIA.

WE now come to a new style of Architecture, that of Western Asia from about 2458 B.C. to 330 B.C. The Chaldæan was the oldest; then the Assyrian, when Nineveh was built; and then the Persian, when Cyrus had conquered the older monarchies. Nimroud is supposed to have founded the Chaldæan dynasty about 2234 B.C., and it lasted about seven hundred years. Then occurs a blank, until the great Assyrian monarchy rose up, about 1273 B.C., and lasted until its destruction by Cyrus in 538 B.C. This was about the date of the commencement of Greek Art, when it was Archaic, that is, early or rudimentary.

The Persian monarchy lasted until the death of Alexander the Great, in 333 B.C., which was the best period of Greek Art. Thus, although Assyrian Art was young as compared with Egyptian, it was old as compared with Greek. We know little about Assyrian Architecture, as only

fragments of Palaces remain; but one feature seems to have been building upon terraces, and another, the enormous size of the Palaces. The reason for raising the Palaces upon platforms was probably for defence, just as Mediæval castles were generally built on hills overhanging a river. In Assyria there were no hills, so mounds were raised, and the cavity made by digging formed a sort of moat. Another reason perhaps was to get more air—to catch any breezes which were blown across the stifling, sandy plains.

Brick and coloured glazed tiles were the materials used for the principal part of the building, with slabs of carved stone. The Tomb of Cyrus is generally supposed to be the type of much earlier buildings, and perhaps of the Temples.

It is worth remembering, that whereas most of the remains of Egyptian buildings are Temples and Tombs, what we find in Assyria are ruins of Palaces. The Egyptians were a highly religious people, and probably spent all their energies upon making their Temples worthy the object for which they were built. Their houses were no doubt inferior, architecturally, and so have perished. On the other hand, the Assyrians were a warlike people, fond of grandeur, but less intellectual and cultivated, and so they

made their own dwellings as magnificent as possible. The Greeks and Mediæval artists



Assyrian Sphinx. Alabaster Slab in the Louvre.

were like the Egyptians: nothing was too grand or too costly for the House of God. We moderns are of the Assyrian type of mind; now and then we spend money upon a church, but for one like All Saints', Margaret Street, how many hundreds of our houses are expensively and lavishly built! During the last fifty years we could count the handsome churches erected on the fingers of one hand, whereas the grand houses filled with luxurious and costly furniture are countless. For one thing, we are in too great a hurry. We like to get everything ready-made. But the old people spent their lives at one small piece of work, and some, like David, simply laid up materials for others to use. This displayed true love and boundless faith. I know of one real artist, in the shape of a cabinet-maker near Salisbury, a man who loves work so much that he never will allow anyone to help him. He is exceedingly clever, and an excellent craftsman, but also very poor. Still he is happy, and prefers getting just enough to live on, and doing all the work himself, to making money, and turning out inferior work. This man really has the spirit of the old artists in him, and obeys the voice of the Preacher-" Whatsoever thy hand findeth to do, do it with thy might."

The modern system of employing several "hands" upon one piece of work is fatal to all artistic feeling. What pleasure can a woman

take in her work when she spends her life in making the foundation of a bonnet, or the sleeves of a dress? Imagine a painter only sketching in pictures for others to paint! But if a girl made the entire bonnet, or the whole dress, she would look upon it as her own work, and feel a pride in it—she would be an artist, instead of a machine.

In a little book of this kind, it is impossible to



Proto-Ionic Capital.

give any adequate idea of the great human-faced bulls which flanked the entrances of the Assyrian Palaces, or of the bas-reliefs which are histories in stone of the wars of the people. A peculiar feature of the Assyrian bulls is that they have five legs, so that, whether they are seen from the front or the side, they appear to be front-faced, or in profile. The pavements in Assyrian Palaces must have been very beautiful; 1 a few fragments may be seen in the British Museum and the Louvre.

Under the remains of the Palace of Khorsabad some vaulted drains have been discovered, which prove that the arch was known to the Assyrians; and it is curious to note that as we found the germs of the Doric capital in Egyptian buildings, so we find the germs of the Ionic and



Proto-Ionic Capital.

Corinthian capitals in Assyrian ruins. These are called *Proto*-Doric, *Proto*-Ionic, and *Proto*-Corinthian.

At Persepolis, which is about thirty-five miles from Shiraz, on the high-road to Ispahan, some remains of early Persian buildings have been brought to light, the inscriptions of which prove

them to have been built by Darius and Kerxes. Some of the ornament is similar to that found in Greek Temples; and at Susa, the remains of the Palace of Artaxerxes have lately been discovered. These are being re-erected in the Louvre Museum in Paris.



#### CHAPTER III.

#### INDIA.

IN India there are no authentic remains earlier than 272 B.C., the reign of King Asoka, though some writers consider them to belong to the time of Gautâma Buddha, 623 B.C. Here again we find Greek ornament, which proves that the Indians acquired it from the same source as the Greeks—Assyria. 2 %

The Indian Topes are domed, and seem to be the earliest buildings of this form; but, unlike the later domed temples and churches, they are flat inside. The dome is exterior only. These Topes seem to have been designed as shrines for relics, and very often they were erected within another building; but sometimes we find them standing alone. They are frequently surmounted by a series of little domes, not unlike mushrooms. The origin of these is most curious. It is well known that in the East, the umbrella is the symbol of royalty. Consequently, in the

32

early times a real one was placed over the shrines; then, when more magnificent Topes were erected, the umbrella was made in stone, and sometimes two or three were placed one above another.

In the Cave of Karli, one of the oldest in India, a wooden umbrella still surmounted the shrine in 1854, and Mr. Fergusson thought it was most probably the original one which had been set up eighteen hundred years ago. So, like everything else in these latter days, the umbrella is not as good as he used to be!

The Indian Temples are built something after the plan of the Roman basilicas. One near Poona has a fore-court, a square space divided into a nave and aisks, and an apse or semicircular end. The whole arrangement is similar to the early Christian churches, which were built upon the plan of the Roman basilicas, or judgment-halls, and which are called basilica churches. We shall hear something about these later on.

Monasteries were built in the rock, in much the same manner as in Egypt. The earliest remaining specimen is in the Nigope Cave, near Behar, which was erected about 200 B.C., and which, constructively, seems to have been based upon a wooden model. The carving in these temples and monasteries is most elaborate, and



In some of the northern provinces remains are found which prove a Greek origin, due to the invasion of Alexander the Great, and in other parts of the country the Mohammedan invasions caused modifications of the original Hindu style.

At the South Kensington Museum there are some models of topes and temples, and casts taken from Indian ornament, as well as an example of a Syrian room, and various

Scindia's Gateway,

specimens of Persian tiles and wall decoration.

## CHAPTER IV

#### CHINA.

THE Chinese have existed as a civilised nation some two or three thousand years, and yet there are no remains of any architectural value in any part of the empire. The inhabitants are not an emotional or an imaginative people, consequently Religion has never inspired them with the enthusiasm which is necessary to create great works of art; and although they have great reverence for their departed ancestors, they do not seem to have desired to commemorate them by erecting costly tombs, as did the Egyptians and Etruscans.

The largest of the Buddhist temples in China is at Honan, a suburb of Canton. This, like the Indian and Egyptian temples, contained many dwellings within its courts for the priests, besides kitchens, refectories, and infirmary wards for the sick.

The taas or pagodas (Pagoda seems to be a corruption of Dagoda, a relic-shrine) are generally octagonal in plan, and consist of six or nine stories, gradually diminishing towards the top. In Kew Gardens there is a very fair imitation of a pagoda, and at South Kensington are two real ones which have been brought from Burmah. They are generally much painted and gilt, and faced and roofed with white and coloured porcelain tiles.

A pailoo is a sort of triumphal arch, made of

wood or stone, and placed across a road or in some other conspicuous situation, in memory of departed widows who had not re-married, or of worthy spinsters; and judging from the number of these buildings, there must have been a



large number of virtuous women in the Celestial empire.

But if the Chinese are not a highly religious people, they are an eminently practical race, and consequently they were always good engineers. Their roads, canals, and bridges are remarkable; and the great wall, which was erected as a boundary to the empire 200 B.C., is a wonderful example of engineering skill. It varies from 15

to 30 feet in height, and is defended by bastions; its length is 1,400 miles; so that it is as high as



Chinese Bronze Lion.

the second floor ceiling of an ordinary house, and as long as the coast of Great Britain from the Land's End to the Orkney Islands.

#### CHAPTER V.

# JAPAN.

In Japan all temples and houses are built of wood, consequently, sooner or later, they get burnt down. The Buddhist temples are very



Japanese House.

similar to the Chinese ones, having heavy curved roofs; but the earlier Shinto temples have much flatter roofs.

The internal decoration consists of carved

woodwork of first-rate quality, as well as painting and lacquer. The great peculiarity of Japanese buildings is that the walls of the rooms are mere screens, which are made to slide in and out; consequently all the rooms on a floor can be turned into one when necessary. Of architectural form in Japan there is none; all effect is gained by decoration, of which they are the greatest masters in the world; and whether they ornament small vases or large walls, after the manner of the Italians, with landscapes and animals, they prove themselves to be excellent draughtsmen and perfect colourists.



## CHAPTER VI

#### ASIA MINOR.

GREEK Architecture has influenced all modern building, and is, so to speak, the parent of all



Variations on Treatment of Doric Temple. From a Sketch by H. H. Statham.

successive styles, even though there may be little resemblance between the parent and the



Attic Tomb (alto-relief). Athens Museum.

children. It did not include the arch and the dome, nor, as far as we know, the tower; but it is impossible that such thorough architects as the Greeks proved themselves to be, were ignorant of these features; and as we shall see something approaching them in their buildings, it was probably a pure matter of taste which prevented their adoption.

Although Greek buildings remain which are



Greek Sphinx.



Centaur.

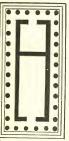


Bas-relie

supposed to date back to 600 B.C. (as, for instance, the old Doric temple at Corinth), still, all the finest examples are of the period between that date and the death of Alexander the Great, when Greek Art declined and gave place to the Roman style.

There are very few remains of domestic Architecture, most of the buildings being either theatres, tombs, or temples, which, unlike the

Egyptain ones, were constructed mainly for external effect. They were partly open at the top, and were ornamented with sculpture on the exterior in the form of bas-reliefs, and studded about the ground on all sides were detached statues. The plan of a Greek tem-



Plan of Greek Temple. From a Sketch by H. H. Statham.

ple resembled all other religious buildings, our own included; but it was all open to the public, which was not the case with parts of Egyptian temples, Tewish temples, and Eastern Christian churches. these latter there was always a sanctuary, into which only the priests entered, and which was completely shut off at certain times. In all Greek Catholic churches.

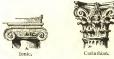
the altar is enclosed by screens and curtains, which are drawn during the most solemn part of the celebration of Mass, i.e. the Office of Holy Communion.

In Greek Architecture "style" is always called "order," meaning not simply the columns and capitals, but the entire erection, every part of each order differing, even to the mouldings.

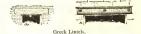
#### GREEK CAPITALS.



There are three orders—the Doric, the Ionic, and the Corinthian.



It is in Asia Minor that some of the earliest tombs in these styles have been found. The Lycian



tomb, which is in the British Museum, is attributed to the seventh century B.C., and is evidently the first work in stone of a ship-building nation;

for it is exactly like a boat standing up on its stern. At Mycenae, one of the oldest cities of







Uncemented Wall.

Greece, some walls have been discovered which are made of rough unhewn stones, piled up one



Greek Doorway,

upon another and uncemented, like our own Gloucestershire walls. And there is also an underground domed building-the Treasury of Atreus, which is simply formed by one stone overlapping another. These

remains all belong to the Archaic or primitive period of Greek Art, and are separated from the best period by a wide distance of time.



Greek Altar.

#### CHAPTER VII.

#### GREECE.

THE Parthenon is considered the most complete of all Greek temples. It is Doric, and was built



Ionic Altar-base at Pergamos (Restored).

by Ictinus, Pheidias being the principal sculptor employed. It stands upon the summit of a steep rock, called the Acropolis, and until the year 1687 seems to have been almost, or quite, intact. In early Christian times it was turned into a church, and in 1455, when the Turks became masters at Athens, they used it as a mosque;

but during the siege by the Venetians in 1687 it was brought to its present state of ruin by the explosion of a powder magazine which had been placed in it. Some of the fragments were utilised by a local builder, but the greater part remained on the spot until the beginning of this century, when Lord Elgin brought them to England, and placed them in the British Museum. (A few fragments are in the Louvre.)



The temple was commenced in the year 454 B.C., and consisted of an oblong space, at the end of which was the cella, or sacred cell, in which stood the wonderful statue of Athene, by Pheidias, which was made of ivory

and gold. This sort of sculpture is called chryselephantine. Behind the cella was the treasury.

The Temple was surrounded by columns, and at each end was a portico of eight columns wide and two deep. It was 228 feet long, 101 feet wide, and 64 feet high, and was built of marble. The roof consisted of marble tiles. It was probably lighted by a sort of clerestory, like the temple of Karnak, as there were no windows, (The clerestory is the upper row of windows in the nave of a church.)

Greek temples were by no means large, as may be seen by studying a chart in the Architectural Court at South Kensington, which gives

the comparative heights of all the most celebrated buildings in the world, and shows the Greek ones to have been amongst the smallest

The Doric order had no base, except when adopted in later times by the Romans. An order consisted of the column and en-



tablature, which was subdivided into many parts,



the principal ones being the cornice, the pedi-







Mutule : support of Pediment.

ment, the frieze, and the architrave. The column

is, in its turn, divided into the capital, the shaft,







Pediment.

and the base; and where there is no base, the shaft rests upon the stylobate.



Shaft and Base.



Stylobate.



Metope (alto-relief).

buildings, the Parthenon was embellished by sculpture, which, as well as the mere ornament, was coloured, the statues being decorated with jewellery, and gold and bronze accessories, such as spears, harness, &c.

The Ionic temples were similar in form to the Doric ones, but the proportions were more slender, and the mouldings



Youth adjusting his Tunic. From the Frieze of the Parthenon, British Museum.

richer and more numerous. The capital is something like a cushion, and the shaft rests upon a base formed of several mouldings. The Erech-



Acropolis of Athens.

theum at Athens, and many of the temples of Asia Minor, are Ionic; notably the Temple of Diana at Ephesus, mentioned in the Acts





Ionic Base.

of the Apostles. Little of it remains, but a description by Pliny, and some representations on coins, enable us to judge pretty well of its appearance. In the British Museum there is the lower part of one of its huge columns, called a drum, which is beautifully ornamented with a

warm, which is beauturing ornars, which is beauturing ornars frieze of life-size figures in bold relief. St. Pancras Church, in the Euston Road, is a feeble imitation of the Erechtheum, or rather of that part of it which is ornamented by caryatides or Atlantes,—a row of figures which support any sort of platform or gallery upon their heads or up-stretched arms.

At the Ecole des Beaux-Arts, Paris, there is an entire full-sized reproduction of a corner of the Parthenon and of a Corinthian temple, as well as casts from all



Caryatide.

the most renowned of the Greek statues. This



part of the building is only open to visitors on

Sundays, as it is used by the students on weekdays.

The Corinthian order was the last to make its appearance, and is considered as much Roman as Greek; indeed, it is scarcely to be found in



Greece, although Pausanias, who lived in the second century, mentions that it was employed in the interior of the Temple of Athene at Tegea, which was built by

Scopas about 394 B.C. The monu-Ioric Abacus. ment to Lysicrates at Athens, built in the time of Pericles, of which there is a fine copy at the Crystal Palace, was also Corinthian.

There is a pretty story of the origin of the Corinthian capital related by Vitruvius (who lived about eighty years B.C.), which is now looked upon as a pleasing myth; but probably, like a good many other myths, there is a grain of truth in it, and if not, there is no harm in believing it. young Corinthian lady fell sick and died. After the funeral, her nurse collected together sundry ornaments of which she was fond, and putting them in a basket, placed it near her tomb, and, lest the weather should injure them, she covered the basket with a tile. Now it happened that the basket was placed upon the root of an acanthus, which in the spring shot forth its leaves; these,





Bead.



Fret.



Fillet.



Honeysuckle.



Lear and Dart.

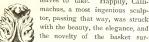


Acanthus.



EXAMPLES OF GREEK ORNAMENT.

running up the side of the basket, formed a kind of scroll in the turn which the tile compelled the leaves to take. Happily, Calli-



with the beauty, the elegance, and the novelty of the basket surrounded by the acanthus leaves, and seizing the idea, he made columns for the Corinthians with capitals in imitation of it."

Hermes or Terms.

### CHAPTER VIII.

SICILY.

BESIDES temples, there are in many parts of Greece and Asia Minor the remains of theatres



Runs of an Amphitnestre.

and amphitheatres. Near Messina, in Sicily, which was a Greek colony, are the ruins of a

very large one. The seats for the audience formed a semicircle, and at the end was the stage, all open to the sky. The "chorus"



The Flavian Amphitheatre.

occupied the space in front of the stage, and it was their duty to sing or chant the "argument," or story of the play. The chorus was a sort of running commentary upon the dialogue of the actors, who, of course, played upon the stage itself. There are also the ruins of three Doric temples at Agrigentum. One of these is considerably larger than the Parthenon, and probably of earlier date—about 500-480 B.C. At Syracuse there is a beautiful ruined Temple of the same date; and at Paestum, in south Italy, which was then called Magna Graecia, there is one of the most perfect examples of a Doric Temple yet standing.

The Greek architects used a great deal of coloured decoration, painting the walls and the ornaments, and laying the floor with mosaic work, the patterns being in both cases very beautiful. We have no remains of Greek palaces or dwelling-houses, but it is probable that those at Pompeii were built after Greek models and by Greek workmen. These show the style of decoration adopted by the Greeks—coloured marbles and gilding, as well as paint and mosaic. At the Crystal Palace there is a reproduction of a Pompeian house, which is perfectly correct in all its details.

Sculpture was not only the chief ornament of Greek buildings, but it is noteworthy that it always suited the position in which it was placed, just as the smaller ornaments or mould-

# 58 The Amateur's Guide to Architecture.

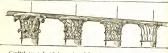
ings were always a part of the construction ornamented. If the moulding in the rough were



Egg and Dart.

convex, a convex ornament, like the egg and dart, was carved upon it, and vice versa. Never a convex ornament upon a concave moulding, or a concave ornament

on a convex moulding. These are the true principles to be observed in the ornamentation of



Capitals treated with increasing elaboration. From a Sketch by H. H. Statham.

a building; principles, which the Greeks shared with the great Gothic architects of the thirteenth and fourteenth centuries.

In a little French book by M. Réné Ménard, "La Décoration en Grèce," these principles of ornamentation are very clearly explained and illustrated.



Greek Cup.

### PART II. DIV II

### ROUND-ARCHED ARCHITECTURE.

# CHAPTER L

### ETRURIA AND ROME.

ROMAN Architecture, properly speaking, dates from the subjugation of Greece and its absorption into the Roman Empire. But long before







this, the Etruscans displayed cunning in the art of building.

Whence came the Etruscans is a disputed point, some affirming from Asia Minor, and others from the north; but it is certain that at the founding of Rome they were a civilised people. They inhabited the west coast of Italy, between the Tiber and the Arno, and had several walled cities; but the only remains of their buildings are tombs (many of which are to be found in museums) and some arched drains



(cloaca maxima) constructed during the reign of the Tarquins, some 600 B.C. This is the first example, as far as we know, of the true arch, built with a kev-

stone. The Etruscans were also the originators of the circular buildings which were so much admired by the Romans, and which were afterwards adopted by the Christians for baptisteries, tombs, and sometimes churches, as at the Temple Church in London.







Pian.

During the first five hundred years of the history of Rome the only extensive works carried on were bridges, aqueducts, and roads. The Appian Way was constructed 309 B.C., and was paved much in the same manner as our modern stone

roads, that is to say, with layers of gravel and square or oblong-shaped stones, without cement.

This road led out of Rome. and was studded on each side with tombs, which still remain. It was called the Via Appia, from its maker,

Appius Claudius.



The Pantheon in Rome was originally a Temple, and what is now called the Castle of St. Angelo was built by the Emperor Hadrian as his tomb: both edifices are circular, and both were formerly filled with statues. It was not until about 146 B.C. that stone was used for



building, brick having been the material employed before that time. The first marble Temple was built by Consul Quintus Metellus, who died in 115 B.C.; but it was not until the time of the emperors that the full magnificence of Roman Architecture was reached. The famous boast of Augustus, that he found Rome brick

### 62 The Amateur's Guide to Architecture.

and left it marble, was true. Theatres, temples, tombs, baths, and palaces were all equally magnificent; and we find remains of them not only in Italy, but in France, Germany, Spain,



The Fantheon. Plist Century B.C.

North Africa, Egypt, and our own country; in fact, throughout the entire Roman Empire.

The Ionic and the Corinthian were the favourite orders, but if we compare them with the Greek, we shall find them much more

ornate; and the Composite order is only to be found in Roman Architecture

The basilicas, or halls of justice, formed the model for early Christian churches. They are oblong buildings, with a semicircular end, round





which are seats for the judges. When the basilicas were turned into churches, the seats were occupied by the higher clergy, the bishop sitting in the central one. It is a silly and ignorant fashion amongst some writers of the present day to speak of cathedrals as basilicas, when they wish to be very impressive-"this noble basilica " is as common a phrase applied to a Gothic church (when it happens to

be a cathedral, as the word etching is to a pen-and-ink drawing. But both terms are equally incorrect. Some churches may have been built upon the same plan as the halls of justice,



and may have become cathedral churches-that is, the seat of the bishop, the church containing his throne (cathedra) and therefore, the principal



Entablature of the Temple of Concord, Rome. First Century. Showing excessive ornamentation.

church of the diocese; but that had nothing whatever to do with the name, which only applies to the form of the building. York Minster and St. Paul's are cathedrals, but cannot possibly be basilicas; the Ravenna churches are basilicas, but are not all cathedrals. Westminster is in plan similar to York, but it is not, and never was, a cathedral, simply because it is an abbey church, and not the seat of a bishop. In Rome there are a great many

basilica churches, but the church which contains the bishop's seat or throne, the cathedral, is St. Peter's, which in plan is that of a Latin cross:



and yet I have seen St. Peter's mentioned as "the basilica." I may be told in excuse for this practice, that the present church occupies the position of one of the oldest basilicas; but the same erroneous habit prevails in France, where Notre Dame de Paris, and Notre Dame de Chartres, and Rheims, and Amiens, are all basilicas according to some journalists of the present day.

The Romans built amphitheatres in all their principal cities, and a great many yet remain. There is one at Nîmes in France, and another at

Verona in Italy; but the largest is the Colosseum at Rome, which was begun by Vespasian about the year 70, and finished by Titus. It is oval in plan, and consists of a series of arches, one above another. In the interior were rows of seats, very much of the same character as the balcony of the Albert Hall, only of stone instead of wood. At the top was a circle of pillars, and over the centre an awning was suspended, as there was no roof. The Albert Hall gives some



Roman Trophy.

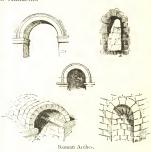
faint idea of the size of the Colosseum, but the latter held twice as many people. Underneath the seats and below the arena are channels for filling it with water for the naval shows and combats: and the dens where the wild beasts were kept, are still to be seen.

The shows held there were of the most brutal order; not only were there fights by gladiators with each other and with wild beasts, but there were combats of various kinds of animals, and struggles between lions and tigers, slaves and prisoners, and (during the persecutions) Christian converts. It was here that the warrior St. Sebastian, the aged bishop of Antioch St. Ignatius, and his friend St. Polycarp bishop of Smyrna, suffered martyrdom, with a multitude of



others. Detestably cruel it all was; but considering the times and the religion of the multitude, perhaps it was not much worse than prize-fighting and bull-fighting, so-called sports which are enjoyed very much in these highly civilised times by so-called Christians.

But the grandest of all the Roman buildings were the free public baths. In Rome alone, between the years 10-324 A.D. no fewer than twelve of these were built. They consisted of private baths, swimming baths, gymnasia, halls for games, libraries, lecture halls, and theatres, all lavishly decorated with the finest paintings, sculptures, marbles and mosaics which could be obtained. The remains of some of them can still be seen in Rome; and nearer home, in Paris, the Palais des Thermes, in the garden of the Hôtel Cluny, is a very fine specimen, though shorn of all its decoration. One of the churches of Rome, Sta. Maria degli Angeli, is the restored hall of the baths of Diocletian, the restoration being the work of Michel-Angelo. Some persons think the Pantheon is a part of the baths of Agrippa; others, that it was a temple. In either case it was probably built by Agrippa, son-in-law of Augustus, in the year 27 B.C.; and it is certainly the most remarkable circular building in the world. It is now used as a church, and contains the tomb of Raffaello.



The Romans were also famous for their aqueducts, which carried water from the distant mountains to the city; and like the baths, we find remains of them

in various parts of the Roman Aqueduct.

empire. The Pont-du-Gard in the neighbour-hood of Nîmes, is a beautiful example.

Triumphal arches and columns were also

much in vogue in ancient Rome, and many remain to this day. At the South Kensington Museum there is a cast of the Trajan column; and in Paris a copy of it was erected by Napoléon, in the Place Vendôme, in commemoration of his own campaigns, these being substituted for those of Trajan on the frieze which twists round it. The Arc de Triomphe, at the end of the Champs Elysées, is also a copy of a Roman



Sections of Arches.

triumphal arch, with Napoleonic victories as alto-relief decorations.

Few remains of palaces exist, although the Roman Emperors built wherever they went, and on a magnificent scale. The least destroyed is that of Diocletian, at Spalatro, in Dalmatia.

As regards the humbler class of domestic buildings, Pompeii gives us some idea of what private houses were like, but it must be remembered that it was a Greek rather than a Roman city. At Brading, in the Isle of Wight, a



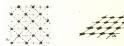
Pompey's Pillar, erected at Alexandria by Diocletian. Third Century.

Roman villa has lately been excavated, and all over this country there are Roman remains of one sort or another

A Roman house was arranged somewhat in this manner. Next the street was a vestibule, provided with seats; then a passage led to the atrium, which was an open court, roofed round the sides, with a central tank to receive rainwater; then a passage led to the peristylium, or principal apartment. There were generally two or more dining-rooms, with different aspects, and a story is told of a luxurious Roman of Cicero's time, who had simply to tell his slaves which room he would dine in, for them to know what kind of banquet to prepare. The sleeping-rooms were grouped all round, and most of the apartments appear to have been on the ground floor. the smaller rooms depending for their light upon the open doorways. In the large houses there were picture galleries and chapels. All this may be studied in the Pompeian Court at the Crystal Palace. All the decoration of a Roman house was internal, the whole being profusely painted in fresco or covered with marble and mosaic. Some of these wall paintings may be seen in the British Museum and the Louvre, and they prove

that painting was as great an art in Greece as

was sculpture; for these frescoes, which were only the work of ordinary house decorators, and copies, probably, of the works of the great



Plans of Payement

artists, are equal, if not superior, to much modern wall painting by men of high reputation.

In the British Museum there is a very fine collection of Roman mosaic pavement, but unfortunately it is buried



ouried Mosaic Pavement.

in a sort of dark underground cellar, where, even on a fine day, it is impossible to study it with any comfort or profit.





Plans of Vaults, showing crossings and Bosses.

The Romans were the inventors of what is called vaulting. A *vault* is a roof, arched either simply as a tunnel, or doubly, by placing one

# 74 The Amateur's Guide to Architecture.

tunnel across another, and cutting away the corners. If you look at the roof of Westminster





Vaults.

Abbey Church, you will see that the arches intersect each other at the crossing, which is covered by a boss.





Waggon-head Vault.

In Greek buildings one order was generally followed throughout, but in Roman often two





Tuscan Order.

or three were employed. The order in which they were used was generally Tuscan, Doric, Ionic, Corinthian, and Composite.



Column of Antoninus.

### The Amateur's Guide to Architecture.

The Greeks never used a column but as a support, but the Romans used them as mere ornaments. If we look at the Arch of Constantine,



Pillars supporting Attic.

we shall see that the pillars have the appearance of supporting the cornice and what is above, called the attic. But if we take away the columns the attic will be equally well supported by the arches alone. That is what is meant by

ornament for the sake of decoration only,

On the other hand, if we were to remove the



Examples of Roman Ornament.

columns of the Parthenon, the whole building would fall down; which proves that the pillars are ornamental construction, and not mere ornament.

The surmounting of a column by a square mass of store, moulded like the entablature, was another peculiarity of Roman Architecture. But although there was a great deal in this style which was bad, it was impressive by its vastness, its rich ornament, and its profuse decoration.



Combination of Doric and Ionic Orders. From a Sketch by

#### CHAPTER II.

#### EARLY CHRISTIAN CHURCHES.

Having seen how the Egyptian, Greek, and Roman styles succeeded one another, we now come to the development of the Roman, called the Romanesque, which became the style of the early Christian Churches.

During the first three centuries of our era. Christians were either openly persecuted or were living in daily fear of offending the civil authorities. All new movements meet with opposition



from the ignorant in high places, especially a new religious movement, as people naturally feel more deeply upon that than upon any other subject. Christianity, as practised in early

times, was too self-sacrificing a creed to be popular, and so we find the early converts at Rome worshipping in the Catacombs, out of sight and hearing. These they decorated with semi-Pagan. semi-Christian designs, much of the symbolism being borrowed from Classic models. Thus we frequently find Orpheus in Greek costume attracting the wild beasts with his lyre, as typical of the power of Christianity to subdue the hearts of even the most brutal of men; and a butterfly



Casket. Late Roman.

escaping from its chrysalis, as a symbol of the soul leaving the body at the hour of death. Most of the Biblical subjects were chosen to strengthen the faith of the converts: the Raising of Lazarus, as a type of the Resurrection; Elijah in his chariot of fire, the Soul's flight to Paradise; the History of Job, patience in bearing troubles and suffering. These were some of the commonest subjects. Also Daniel in the lions' den, the Drowning of Pharoah in the Red Sea, and the Good Shepherd surrounded by His sheep. Even as late as the sixth and seventh centuries there are very few representations of the sad side of our faith. Christ in glory, surrounded by Saints and Angels; the Baptism of Christ, accompanied by a human representation of the river god, Jordan; and an empty cross with a linen cloth hanging upon it, as typical of the Crucifixion, are the commonest subjects of the Ravenna mosaics. The persecutions were so engraven upon the hearts of the Christians (they had taken place almost within the memory of their fathers), that it was not necessary to record the Martyrs' sufferings in order to keep their faith alive. Nor did they think their own sufferings worthy of record, for, as M. Rio says in his charming book upon "Christian Art," "Had they felt that any earthly glory was due to them for their frequent triumphs over Paganism, they would have lost somewhat of the purity of their sacrifice."

Early in the fourth century, Constantine the Great became emperor, and was converted to Christianity. He was by no means the first Christian sovereign, but he was the first to make Christianity the State religion. There is a tradition that Lucius, who was king of part of Britain, about the year A.D. 150, was a Christian, and that he founded the chapel at Dover Castle, the church of St. Martin at Canterbury, and others at Bangor and Glastonbury, besides a monastery at Winchester. He is also said to have converted the Temple of Diana into the first Church of St. Paul, London, and the Temple of Apollo into the Abbey of Westminster. Whether this is more than tradition we know not, but it is a fact that Christianity had many followers in this island, centuries before the so-called "conversion" of the British by St. Augustine in 601. Otherwise how could St. Alban and his companion St. Amphibalus the deacon have suffered martyrdom in 305? Whether we were converted by St. Paul, or by St. Joseph of Arimathea, it is impossible to say; but some of the oldest writers mention these traditions, and speak of them as facts, and there is no evidence against them. That the Abbey of Glastonbury was founded in very early times is certain, and we may therefore believe the legend of St. Joseph being its founder if we like. But that the whole of Britain was Pagan when St. Augustine came here in 601 is false. No doubt a part of it was, as it now is in 1887; but even allowing

that the men of Kent were at that time immersed in Paganism, the facts that St. Augustine had great difficulties in Romanising the rest of the country, and the hostility of the British bishops, prove that he only "converted" a small part of the island. At that time the British Church derived its customs, rites, and ceremonies from the East, and its Metropolitan was the bishop of Caerleon-on-Usk. Augustine would not agree to this state of things, and so he deposed the recalcitrant bishops, made over their sees to his friends, acknowledged the Bishop of Rome as his chief, and for his reward received the pallium, or pall, as Primate of England. It is well to remember these facts, as the pretty story of St. Gregory saying of the British children who were carried off to Rome, "Non Angli, sed Angeli," is constantly repeated as the origin of our conversion to Christianity.

In Britain as in Rome, the first centuries of our era were troublous times. While the Emperors remained Pagans, there was little peace for the Church: but with the advent of Constantine, the Christians emerged from their hidingplaces, and then began a period of church building.

Many of the Roman basilicas and baths were turned into churches, and churches were built upon the same plan. In Rome itself there are several basilica churches which were commenced soon after the time of Constantine, and in Ravenna are some of the time of Justinian,

about two hundred years later. San Clemente at Rome is the oldest. In studying the plan of this Church, one sees that the atrium of the basilica became the outer cloister, the side next the Church being called the narthex. In the centre of the atrium stood a fountain or tank of water,



where those about to enter the church washed their hands—the origin, no doubt, of the practice of dipping the fingers into the piscina. The inner part of the church was only entered by the



communicants, non-communicants remaining in the narthex during the Celebration of the Holy Eucharist.

Apse and Altar. Basilica churches consisted generally of a nave and two aisles, but sometimes they had four. Round the afse against the wall were stone seats for the clergy. The allar was in front of these, standing by itself, away from

the wall. If we examine a photograph of Sta. Maria Maggiore, at Rome: Sant' Apollinare in Classe, near Ravenna: Sant' Ambrogio, Milano; Sta. Maria, Torcello, in the Venetian Lagune:



Sarcophagus Altar.

or San Miniato, Florence, we shall find some or all of these characteristics. In olden times, and in some of them at the present day, mass was cele-

brated looking west; that is to say, from the apse side of the altar, facing the congregation. I believe this custom is followed in St. Peter's, Rome, when the Pope celebrates at the high altar under the haldaching.

There is a church in this country-St. Nicholas, Wilton -which has this apsidal arrangement of seats, but the clergy never occupy them. It is rather a bad copy of a Lombard church, but it is well worth a visit, as it gives one some notion of this style; and it also



Baldachino.

contains some fine marbles and mosaics, brought by the late Sidney Herbert from Italy. The pulpit is one of the most beautiful modern ones to be seen; and had the building of the church been postponed a few years, it would doubtless have been a perfect copy of an Italian one.

In basilica churches a screen separates the space enclosed for the choir from the nave, and

on each side are two ambos, or pulpits, from which, originally, the Epistle and Gospel were read Sometimes the choir was raised above the nave, and approached



on each side by a flight of steps. The walls and columns were of beautiful marbles, often the remains of Roman temples, and the pictorial decorations consisted of mosaics, which are as perfect in many of them as when first



set up. Sometimes there was a gallery above the aisles, after the manner of what is called in Gothic churches the triforium. In Paris there is a modern church built in this style, which is well worth a visit-St. Vincent de Paul. It

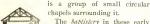
is decorated with frescoes by Hippolyte Flandrin, the greatest and most earnest of modern religious painters; and all round the nave above the arches is a frieze of a procession of Saints, suggested by the mosaic one in Sant' Apollinare Nuovo, Ravenna. There is also a modern basilica church in München, richly decorated with frescoes.

The only windows in basilica churches occupy



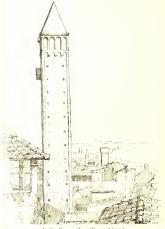
Romanesque, Ground Plan.

the place of the clerestory in a Gothic church, If you study the plan of the basilica, you will see how it developed into the Gothic church. The pillars of the nave were stopped some distance from the choir, a transept was built out on each side, and the apse became a chêvet, which is a group of small circular



Churches was adjoining the nar-Basilica Roof thex, or entrance porch, or else

detached from the church entirely. This had a meaning. A person became a member of the church through the Sacrament of Holy Baptism at, or outside, the door; he then, as a catechu-



Italian Campanile. (See next page.)

men, worshipped in the narthex; but when he

became a full member, i.e. a communicant, he approached the altar end of the building. You will find all but a very few modern churches, built by ignorant people, arranged in this symbolical manner. The old American church in Paris had the font by the side of the altar, within the screen, which of course was considered a novelty, and therefore to be admired; but in the new church it is in its proper place.

The towers of these early churches were nearly always detached from the rest of the building, especially in Italy, where they are called campaniti, a word which is commonly used in English books on Architecture. Very few are to be seen in this country, Wilton being one of the few, where the tower is connected with the church by a sort of cloister or passage open at the sides.

The tomb of Theodoric belongs to this period (493—525), and was probably built in imitation of the mole of Hadrian, at Rome. It is a circular, or rather polygonal building, with a roof formed of one enormous slab of stone hollowed out into the form of a flattened dome.



#### CHAPTER III.

### BYZANTINE CHURCHES.

In the year A.D. 330, Constantine the Great removed the seat of government to Byzantium, which he rebuilt and renamed Constantinople. Some fifty years later the Empire was divided into East and West, and Theodosius retained this city as his capital, while Rome once more became the capital of the Western Emperors.

A church dedicated to St. Sophia, or the Holy Wisdom, was erected by Constantine, but was burnt in the reign of Justinian, who built the present one, now unfortunately turned into a mosque. This was about the years 527—505. It resembles in plan and general character San Vitale at Ravenna. Both are covered with mosaics, which in San Vitale represent, amongst other subjects, the marriage of Justinian and Theodora.

Throughout the East, including Syria, the

### 90 The Amateur's Guide to Architecture.

dome was adopted, and the cruciform or cross arrangement commenced.

San Marco, Venice, is Byzantine in style, but



Byzantine Domical Casket.

of much later date (977—1071). This, too, is a mass of mosaics of various periods, the earlier ones being by far the finest. All these churches

are lighted almost exclusively by small windows in the domes, which is one of the characteristics of this style.



In central and southern France. in Sicily as well as in Greece and Asia Minor, Byzantine churches may be seen. At Perigueux in southern France, St. Front is almost identical with

Gallery. San Marco, Venice. It is most probable that this Oriental influence was due to





the intercourse which took place between the East and the West by way of the Mediterranean Sea.



### CHAPTER IV.

## ROMANESQUE CHURCHES.

ROMANESQUE Architecture was the Roman style adapted to Christian purposes, and became by development Lombard, Rhenish, and Norman. Rome was the centre of Religion in the West after it ceased to be the seat of the





Romanesque Capitals.

government. The Bishop of Rome was Patriarch of the West; i.e. the chief bishop of the Western churches, by reason of the see having been founded by St. Peter; just as the Bishop of Jerusalem was the Patriarch of the Eastern churches, from the see having been founded by



Worms Cathedral. Dedicated A.D. 1110.

St. James the Less. In Rome the ritual of the Church changed from time to time, as did the fabric of the church. In the East the ritual is exactly the same now as it was in the first







Romanesque Capital.

centuries of Christianity, and the churches are built on the same plan. In all Greek and Russian churches the choir is shut off from the rest of the church by screens and curtains, just as the Holy of Holies was in the



Jewish Temple. Indeed, so much similarity is there between the two, that it seems probable that the Apostles adapted the fabric of the Temple to their wants, as well as the vestments, the music, the incense, and the lights. The socalled Gregorian chants are the old Jewish ones, adapted and arranged

as Christian song by Pope Gregory the Great; and judging from the magnificence of the early churches vet remaining, it is much more probable that the ritual of the first centuries resembled the grandeur of the Jewish rather than the barrenness of modern Protestant worship. The

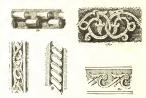




Romanesque Door-head.

Gothic Censer.

same people who covered their churches with marbles and mosaics, and who enriched the altars and the sacred vessels with enamels and

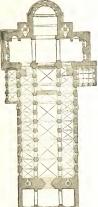


Romanesque Ornamentations.

precious stones, would hardly be likely to clothe their priests in black stuff gowns, or even in simple surplices.

# 96 The Amateur's Guide to Architecture.

In Syria there are no very early churches remaining, owing to their destruction by the



Plan of Spires Cathedral. Commenced A.D. 1030.

Turks, but most probably the Christians in that

country adapted existing buildings to their use in the same manner as was done in the West.

Romanesque Architecture was a combination of the Basilican and the arched Roman styles,



Doorways of San Miniato, Florence.

the transepts being added, and thus making the plan of the church into a cross. The space above the columns was arched, and the roof was frequently vaulted; the doors, too, were often



Lintel and Arch.

Transition from Beam to Arca.

arched. In San Miniato, Florence, the doors themselves are square, but the doorways are arched, the arches springing from pillars on each side. If we cut away the square *lintel* of the door, we have an arched doorway, as in later

churches. It must be borne in mind that styles of Architecture are simply a series of developments. Our old friends the Egyptians placed a straight beam on the top of two posts; these posts or pedestals the Greeks converted into





columns; then came the Romans, who cut away the beam and put an arch in its place. The Romans were followed by the Northmen, who pointed the arch, and made vaulted instead of



Vaulted Roof.

flat roofs, by a series of arches intersecting one another (see pp. 3, 17, 97).

Of Saxon Architecture we have very little power of forming an opinion, as most of the churches built by the Anglo-Saxons were destroyed, or rebuilt by the Normans. The almost unique example of a church earlier than the





Early Porch.

Early Roof.

tenth century in this country, is Bradford-upon-Avon, near Bath; and the tower of Earl's

Barton, Northamptonshire, is also supposed to be Saxon. In this latter there is a certain Roman-esque character, and it is most probable that the greater part of the churches existing at the time of the Conquest were Romanesque, as almost all those of north Italy up to the fourteenth century are



Niche for Statue,



in that style. So, too, are many of the Rhenish churches up to the twelfth century, and some of those of southern France. In Rome and in the south of France, Gothic

Architecture never made much progress.



But it is to the French architects that we owe the chèvet, which is a series of apsidal chapels. It first appeared at St. Sernin, Toulouse, and became one of the distinguishing features of French Gothic. The east end of Westminster also terminates in a chèvet, proving the architect to have been under the influence of French Art, if not a Frenchman.

The first appearance of two lights or windows under one head, and the deep porches of door-



Romanesque Porch.



Norman window

ways, which became such distinctive characteristics of Gothic Architecture, was in Romanesque buildings. Roofs were sometimes made of wooden beams, as in the Basilican churches, and sometimes vaulted, as in Gothic ones; but, remember, that until quite recent times, the dome is only to be seen in Byzantine churches. Another peculiarity of the Romanesque style is the introduction of the grotesque in sculptured ornament. We find all sorts of strange birds and beasts, and combinations of animals and human beings-griffins, sphinx, dragons, and the like. This kind of sculpture is never to be seen in Byzantine, or in any Eastern style, but it is exceedingly common in Romanesque, Norman, and Gothic; in the latter, the finishing point of waterspouts, called gargoyles, which carry off the rain from the roofs, are quite worthy of careful study.

In Romanesque, as in Byzantine Architecture, a very common and beautiful feature is mosaic ornament. It is generally made of irregular-shaped pieces of glass of various sizes and colours, the irregularity of old mosaic being the secret of its brilliancy. Modern mosaic is too even, and so the pieces do not catch the light in the same manner; it rather falls on the mass, instead of fickering about in different places. There is no decoration to equal mosaic; it is the most rich in colour, the most brilliant, and the most durable.

The exteriors of Romanesque churches are vastly inferior to the *interiors*, often being even insignificant and plain, not to say ugly.



Cloister of St. John Lateran, with Roman Doric Columns. Twelfth Century.

#### CHAPTER V.

### NORMAN.

THE Norman style is only a branch of the Romanesque, but it is usually plainer and more massive. It lasted in England from the Conquest until about 1189. Parts of Canterbury Cathedral, and nearly all Durham, Rochester, and Peterborough are good specimens of the

style. The Chapel in the Tower of London is an early example, and St. Bartholomew the Great, Smithfield, is a later one. A great many existing country churches have Norman doorways, even where the

Norman Wall. other parts have been rebuilt.

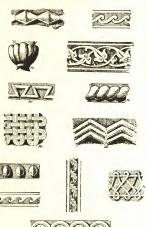
The French do not use the word Norman; they divide Romanesque (Architecture Romane) into primitive, secondary, and transition, the respective periods being the fifth to the tenth century, the tenth to the end of the eleventh century, and the twelfth century. In England there are a good many examples of Norman castles, one—and a very grand one



Remains of Norman Church.

-in London. The characteristics of the style are these: massive, often clumsy, pillars of one single shaft; round arches, and plain cube

106 The Amateur's Guide to Architecture.





Examples of Romanesque and Norman Ornament,





Norman Castles.









Norman Bases.







Clustered Column.

## 108 The Amateur's Guide to Architecture.

capitals at first, and afterwards ornamental ones, very like the Romanesque. Mouldings of doorways were generally ornamented with much carving, either of patterns, or foliage, or strange





Turret Stairs.

beasts. A very fine doorway, with a mass of this kind of sculpture all round the head of the arch, and upon the jambs, may be studied at Rochester. There is a solid rudeness about our



Norman Crypt,



Norman Font.

Norman churches, from which the southern Romanesque ones are free, due, perhaps, to the inferior culture of the northern peoples; but then we must bear in mind that our early churches have been shorn of more of their ornament than those of the south. They were mostly coloured, but by fresco, unfortunately, instead of mosaic; consequently, the decoration







Norman Buttress.

has disappeared, as must infallibly happen in so damp a climate as that of England. At St. Alban's Abbey Church a few wrecks of very early fresco painting still remain.



Saint with Nimbus.

### CHAPTER VI.

# SARACENIC.

SARACENIC Architecture is peculiar in being the only style which adopted the horseshoe arch.



Horseshoe Arch (see asso page 3)



Saracenic Arch.

The oldest buildings of this kind are the Syrian and Egyptian mosques and tombs. They are nearly all domed, and have numberless minarcts or small towers. Very many of them so much resemble St. Sophia, that it is quite possible the Saracens took that church as a type for future buildings. When the roof is not domical, it is flat, and

Minaret covered with plaster painted in geometrical patterns—what is called Arabesque orna-

ment. In fact, the whole interior of Mohammedan mosques is exquisitely decorated, either in



Upper Portion of Arcade in the Mosque of Tûlun. A.D. 873.

mosaic, or with coloured tiles or paint, but never with representations of men or animals.

#### 112 The Amateur's Guide to Architecture.

The windows contain stained glass in the same style of decoration—small geometrical patterns.

At Jerusalem is a very ancient octagonal building, called the Dome of the Rock, or Mosque of Omar, which occupies part of the site of the Temple. Whether it was a Christian



Latticed and Grated Window, Jerusalem.

church of the fourth century converted into a mosque by Abdel Malek in 688, or whether he erected it, is a disputed point; but it is undoubtedly very like Justinian's Byzantine churches.

The conquest of Spain and Italy by the Moors

naturally introduced the same kind of Architec-



A Peep over the Housetops, Jerusalem.

ture into those countries. That marvel of light



Perforated Parapets, Jerusalem.

and beauty, the Alhambra, was built between 1248 and 1314; and throughout the provinces of



Interior of the Alhambra, in Granada.

Spain which were overrun by the Moors the remains of their sumptuous buildings may still





Moorish Capital.

be seen. In India likewise there are a great many Saracenic mosques and tombs.

At the Crystal Palace there is a very beautiful reproduction of the Alhambra; but one of the real building's beauties-lightmust always be wanting, even at Norwood, which is somewhat out of London fog. It is the exquisite Spanish sky which makes the building appear, as poor Regnault\* said, "of gold, and of silver, and of diamonds." He speaks of it as



" la divine Alhambra, où les murs sont des dentelles d'améthystes et de roses le matin, de diamants à midi, et d'or vert et de cuivre rouge au coucher du soleil"

\* A young French painter, who was shot in the Franco-German

# PART II. DIV. III.

POINTED, OR GOTHIC ARCHITECTURE.

POINTED, or Gothic Architecture, is the style which was almost universal in Europe during the thirteenth, fourteenth, and fifteenth centuries.

The pointed arch had been current in France some hundred years before its

introduction into this country; and the style was inaugurated at St. Denis at least thirty vears before William of Sens began the rebuilding of Canterbury Cathedral after the fire of 1174.

Pointed Arch.

In French it is called Architecture ogivale, and divided into primitive, secondary, and third periods, or flambovant.

In English we divide it into three classes: thirteenth century, or Early English; fourteenth Pointed, or Gothic Architecture. 117

century, or Decorated; and fifteenth century, or



Tour de St. Laurent, Rouen.

Perpendicular. At Westminster you can study all three periods. The nave is Early English;



Flamboyant Door, House of Tristan l'Hermite, Tours.

the choir is Decorated, and Henry VII.'s Chapel

is Perpendicular. All the grandest churches in Europe, with a few exceptions, belong to this



style. The term Gothic is used for want of a better, Formerly a Goth was a term of reproach, and meant simply the swarms of barbarians who overthrew the Roman Empire. But amongst these same barbarians were many who possessed true artistic instincts; for they

not only conquered the Roman people, but they rebuilt their cities, and thus the style of Archi-





Perpendicular Confessional.

tecture invented or developed by them, has been called the Gothic.

With the eleventh century began a period of

religious enthusiasm. The first Crusade took place in 1000, and it was about this time that churches were first generally built upon the plan of a Latin cross. The long part of the cross is





Apsidal Choir or Chancer.



Cruciform Church



Porch (Decorated).

called the nave, the cross part the transepts, the upper part the choir, chancel, or presbytery. What is called the narthex of a basilica is often found in Gothic churches, but is simply a sort of entrance porch, having no longer the same use.

St. Denis, near Paris, has one, and the Galilee porch of Durham Cathedral may be considered of the same character, though Norman in style.

The side aisles of the nave almost always have a gallery above the vault or ceiling, which is open to the nave. This is called the triforium. The upper part of the nave has windows, and is called the clerestory (see p. 86).

The baptistery is inside the church, generally a chapel at the west end



Triforium

Gothic churches are much narrower than basilicas and Romanesque ones. This results





from the custom of making stone instead of wooden roofs. Of course, a wooden roof, being light, could be of any span; but a great mass of

#### 122 The Amateur's Guide to Architecture.

stone had to be managed so that it would not fall in the middle. This led to making the nave narrower, and using buttresses as external sup-



Wooden Roof



Stone Roof.

ports; for although the side aisles to a certain extent support the nave, yet without buttresses







Carly Buttresse

the strain might be so great that it would collapse.

At first buttresses were solid masses; then they were partly detached, and ultimately, as flying buttresses, they became an ornament to the entire building. Chapels were generally placed round the main building; the central one at the



east end being usually dedicated to the Blessed Virgin, and familiarly called the *Lady Chapel*. At Westminster, the chapel built by Henry VII.

as a resting-place for himself and his Queen occupies the place of the Lady Chapel.

In churches which belonged to monasteries, such as Westminster, St. Albans, and Canterbury, the *clioir* is enclosed and extends some distance



Side Chapel.

down the nave; but in cathedrals having a chapter of secular clergy, the choir only extended as far as the transepts, as at Salisbury and Notre Dame, Paris. The difference between

### 124 The Amateur's Guide to Architecture.

regular and secular clergy was this: the regular were monks of some order, who were bound by certain vows and rules, and who were under the control of an abbot, or the General of the order;





whereas the secular clergy were priests and deacons under the control of the bishop of the diocese. Monks were not always priests, and of course priests were not always monks. The







monastery was a little world of its own, having its own little army of lay brethren, monks, prior, and abbot, all completely independent of any ecclesiastical jurisdiction outside. The mitred abbots were often of higher rank than the bishops, and in the disputes and wranglings which were constantly taking place

which were constantly taking place during the Middle Ages, they always appealed to the head of their own order, or to the Pope. In some old pictures it is not easy to distinguish abbots from bishops, as they are commonly depicted in the same vestments; both wear mitres on their heads, and both, as shenberds, carry



neads, and both, as snepnerus, carry crooks in their hands. But the crozier of the abbot is turned inwards towards himself, symbolic of his rule being confined to his own little flock



Triptychs.

of the abbey; whereas the bishop's crozier is turned outwards, emblematic of his care being for all erring sheep in the greater world.

#### 126 The Amateur's Guide to Architecture

In Italy we may still see many a monastery as of old: for, although the religious orders are suppressed as societies, the buildings remain







Diptych.

much the same as they were formerly. San Marco, Florence, where Fra Angelico and Fra Bartolommeo painted, and where Savonarola



Altar with Super-altar.

lived and taught, remains a perfect example of church, refectory, cells, cloisters, and dormitories. Architecturally it is nothing remarkable, but for its associations it is one of the most interesting

buildings in Florence. In this country we have only fragments of monasteries. Westminster is as complete as any, as there still remain the church, the great and small cloisters, the

chapter-house, the different houses of the superiors, the gardens, and the refectory, which is the present dormitory of the school.

One of the peculiarities of English cathedrals is the great length in proportion to the width; on the other hand, French churches are excessively high and wide for their length. In this, Westminster resembles the latter; for it is three times as high as it is wide. There are many





Plan of Cloister

more beautiful churches in some respects; the towers, for instance, built by Wren, are poor and mean, and the exterior is not to be compared to that of Salisbury; but for beautiful and graceful proportions, the interior is equal to any, and superior to most. If you shut your eyes to all the hideous marble Angels, Victories, and statesmen which (especially the latter) profane the nave and aisles, you will find the church full of architectural beauties. Unfortunately, the

good example set by Archbishop Trench, when he was Dean of Westminster, forbidding any new monuments to be placed in the church, has not been followed by his successors; and consequently the setting up of marble efficies of men who never entered a church in their lifetime (except for a marriage or a funeral) goes on, to the destruction of the beauty of the building and of the religious feelings of the Christian. The monuments, especially the more modern ones,



Credence Table.



are as great an exhibition of bad and perverted taste as the stained glass which perpetuates the skilful engineering feats of Stephenson and Brunel

Again, what can be more beautiful than the east end, the Confessor's Chapel, and the steps leading up to Henry VII.'s Chapel? If Londoners found all this picturesqueness across the Channel they would never cease to talk of it: but few, probably, rarely go beyond the choir and nave. During my residence in Paris, I so often found English people full of enthusi-







Turret Steps.

Base of Turret.

Turret Window.

asm for Notre Dame who knew nothing of Westminster; and yet, although the former is larger,

and in some respects finer, for elegant proportion and picturesque effect it is not to be compared to the London church. The main beauties of the French cathedrals are the deep portals with their mass of sculptured ornament.



Scarpeared 1 ortal.

The great German cathedral of Cologne is, like Notre Dame, cold, and new, and regular; there are no mysterious corners and vistas—you see it all at once. But at the abbey you can wander about for hours amongst the old tombs and find a picture at every turn. Nor are you

disturbed by scrapings and mendings; whereas Cologne, Notre Dame, St. Denis, and Salisbury,



and alas! many others, have the clean appearance of new churches.



Spires.

In England, Canterbury, Lincoln, and Lich-

field are the best examples of finished towers; and Salisbury is not only the highest, but the

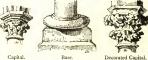
most beautiful spire. Many of our cathedrals, like those on the Continent, lack the central spire or tower, a lantern supplying the place. This is because the church was deemed too weak to support a tower, as originally intended. Where there is a central spire, you will often find that extra arches have been added to strengthen it; sometimes, as at Salisbury.



Top of Flêche, or Lantern.

sometimes, as at Salisbury, these arches are reversed, i.e. placed upside down.

Early English capitals are plainer than

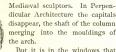


Early English.

Decorated Capital.

Decorated ones; but in both periods the carving of capitals, of bosses, and of corbels is full of

cunning devices, and shows the invention of the



But it is in the windows that the great difference consists. In Perpendicular Shaft and Arch Mouldings. Lancets. Then the two lancets were placed together under an outer arch, called the



Plans of Shafts. 13th to 16th Century.

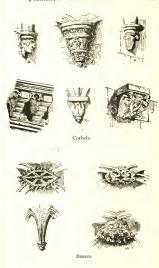
dripstone. Then the space above the windows was pierced with a hole; this was called plate-





Window and Dripstone.

tracery, tracery meaning the mullions of a



window, or what we commonly call windowframes. Then came another subdivision, and the plate was turned into a trefoil, a quatrefoil,



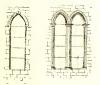
Trefoil



Window Heads



or a cinquefoil. Then the lancets and the head ornaments were brought close together and the windows became larger, often having as many





Lancet Window. Two-light Window.

Plate Tracery.

as five, or even seven lights. Later on, still further subdivisions took place: geometrical tracery came in, and in the Perpendicular style.

straight mullions were used instead of curved ones. *Doors* were treated in the same way; sometimes one door, sometimes two, were placed under one head. The space above the straight





Examples of Decorated Tracery.

part of the door is called the *tympanum*, and is generally elaborately decorated with sculpture. It must be remembered that in the Middle Ages pictures and sculptures took the place of our



Door Head.



Tympanum.

(See also p. 129.)

books. Naturally, when only a few persons could read, the people had to be taught by pictures in stone, as well as sermons; and thus you find in various parts of a church whole histories, sacred and profane: the Last Judgment, the Annunciation, surroundings of the cardinal Virtues, the Vices, Saints, Angels, and various other conceits; and often in the wood carving of the seats, fables,



allegories, and legends.

The roofs of Perpendicular churches are of what is called fan-tracery. This may be seen at Windsor in St. George's Chapel, in Henry VII.'s Chapel at Westminster, and King's College Chapel at Cambridge.

Gate and Drawbridge.

Externally, the roofs were very steep in the thirteenth century, less so in the fourteenth, and almost flat in the fifteenth century. Some of the timber roofs of halls are very fine; as for instance, those of Westminster Hall, erected in 1397, and Wolsey's Hall at Hampton Court Palace.

Development not only took place in windows, but in arches and columns. At first they were plain, then the mouldings of the arches became very complicated, and the capitals were often decorated with foliage and grotesque figures; columns became clustered, and in Perpendicular buildings capitals disappeared altogether.

One of the most perfect specimens of thirteenth-century Architecture is in Paris, the Sainte Chapelle, built by St. Louis in 1260, to contain some precious relics brought by him





Early English Base and Capital.

from the East. It is filled with the most perfect stained glass, a great deal of it old; and it is evidently the result of the love and enthusiasm







of two true artists: the king, Louis IX., and the architect, Pierre de Montereau.

All these churches, and many others which I

have omitted of the same period, seem to be the

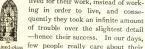


Clustered Column and Base.

outcome of enthusiasm. Love and faith were the ruling passions of all the early artists,



whether builders, or painters, or sculptors; they lived for their work, instead of work-



Stained-gla Window

-hence their success. In our days, few people really care about their work. They do it because they want money, and they only do it well because they may get more for good than for bad work. But they take no pains over it, nor do they love it for its own sake; and yet there is very little work which might not be a real pleasure to the workman, if he would only do it with heart



Carved Miserere Seat.

and soul. The mere desire to be a good craftsman ought to be a pieasure, even though the work itself be uninteresting, though I very much doubt any handicraft being uninteresting to an enthusiast. In these days it would be thought the height of folly, approaching insanity, for a king, or anyone else, to walk

barefooted with a reliquary in his hands, and the poor benighted creature would be shut



Reliquary, or Chasse,

up in a lunatic asylum; but the humility which prompted St. Louis to do so in honour of his Master, and the enthusiasm which caused him to build the Chapel as a palace for a piece of

the Crown of Thorns, would do no harm to us in some of our modern enterprises.

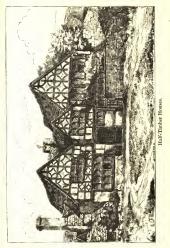
In this country there is very little good old stained glass, and most of the modern is either indifferent or bad. At St. Denis and in the Sainte





Leading of Windows.

Chapelle the old is so well imitated that one can scarcely tell which is which. Good glass is stained, not painted; the former is transparent, the latter—as, for example, the horrible Munich-painted glass in St. Paul's—is opaque, consequently the light does not shine through it. A



stained-glass window is made by fitting together

pieces of coloured glass by means of little strips



Carved Wood, Canopy.

of lead. Different colours are chosen for the





Carved Wood Miserere Seats.
faces, hands, feet, dresses, and backgrounds, and

then the features, folds of drapery, &c., are painted with transparent colour, and the whole is *fired*, or burnt in.\*

Some of the Gothic woodwork is very fine and



Dormer Windows.

often very grotesque. What are called miscrere seats, which turn up and form a sort of uncomfort-



Timber and Brick.

able leaning shelf, allowing the person to rest when he ought to be standing, are very often

 A little glass of the best period may still be seen in Canterbury Cathedral,

most odd and quaint in design. At Wells these are exceedingly grotesque and humorous.

The Domestic Architecture of this period was often very ornamental.





Timber and Plaster combined.

In what are called half-timbered buildings the exterior beams are left, and the plaster which is filled in between them is ornamented with pat-







Fireplace.

terns Fireplaces were generally elaborately sculptured, and the rooms were lined with woodwork. The cellings also were of wooden beams, very often with divisions painted with armorial bearings, and ornamented with rosettes and escutcheons. The Savoy Chapel, in the Strand, is a good example of this

sort of ceiling, or roof.

At Chester there are many of these half-timber houses, and at

Warwick, Leicester's Hospital is a charming example, though very much restored.



Gothic Finials.

In London there are a few old houses in Holborn, and Crosby Hall, in Bishopsgate Street, is a fine specimen. Near it you can inspect Great

St. Helen's, a beautiful Perpendicular church, containing fine old tombs; one, if I mistake not,

of the old Crosby of the neighbouring hall. Also hard by is St. Ethelburga's church, a thirteenth-century fragment; and, over the water, St. Mary Overy, or St. Saviour's, is a grand Early English church. The Temple is an example of a round church of the twelfth century, to which is attached a



Memorial Slab.

thirteenth-century nave. This, too, with its old tombs of Crusaders, everyone ought to see; and,



Rood



Carved Sideboard.

unlike the others, it is open at certain times for visitors—that is to say, it is meant to be open. On one occasion, when I tried to get in, I innocently went away on finding the door shut, not knowing that a woman was on the other side ready to open it if I knocked. This, of course, is an ingenious little device for obtaining sixpences, and



Iron Door-handle.

it would be better to state that the church "is open to those who knock." But at St. Helen's and St. Saviour's you are obliged to hunt up the clerk, who of course fidgets about if you stay long

enough to study the church. One of the strangest customs of this Christian land is the shutting up



Hinge of Door.

of churches when no service is being held. Even apart from the possibility of people desiring to say their prayers

in a quiet spot, the old churches are public property and public monuments, and therefore ought to be open all day; instead of which, if



Crockets.

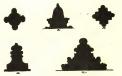
you wait about after the office is over, you are driven out by the beadle, and if you go at other times, it is a chance whether you find the person in charge of the keys. The French architects, as we have seen, developed the Gothic style earlier than the English, but they retained the single massive pillars long





Perpendicular Capital and Base.

after clustered columns became the fashion in this country. As a rule, the exteriors of French churches are far finer than those of English ones,



Plans of Shafts of Columns.

and the tracery of the windows much richer. The rose windows of French cathedrals are magnificent, as are the deep-sunken fortals (see p. 129).

In Italy, Gothic buildings have a distinct style of their own. In Venice we find the horseshoe pointed arch, owing to the constant intercourse between the City of the Lagunes and the East.





Sculptured Head of Doorway.

cose willidow.

In Genoa and Pisa, bands of black and white marble form a distinctive feature. In Florence, Siena, and other towns, the churches are built of brick, faced with coloured marbles in patterns or bands. In Verona they are built of a beautiful buff marble, a sort of yellow-ochre colour.

The cathedral of Milano is the largest Gothic church, after Seville, in Spain, but not having been built until 1385-1418 it is not in the best style. It has a cardboard appearance, and is utterly wanting in the great charm of an old church—mystery. Florence Cathedral was built 1420-1444, and the adoption of the done brings it almost into the Renaissance period. It is the work of Brunelleschi, the friend and companion of Donatello



Fluted, twisted, and variously ornamented

columns are characteristics of Italian Gothic, and also the use of terra-cotta sculptures. This has lately been introduced into some of our new London buildings. Philips' house in Oxford Street, and the Constitutional Club, in Northumberland Avenue, are good examples of the employment of red brick and terra-cotta decoration, and we ought all to be thankful to those who have delivered us from the sham stone edifices of the last generation. True, red brick





Twisted Column (Italian). Terra-cotta Sculpture.

gets black in London. What does not? But dingy red brick is infinitely less objectionable than dirty, and dank-green, peeling stucco. Besides, red brick saves us from the eccentricities of black, chocolate, orange, emerald green, and crude blue frontages and doorways, which are a terror to people of any real artistic taste.

Terra-cotta is only the Italian name for a superior kind of brick, or burnt clay, and in French it is called terre-cuite.







Examples of Wood-Carving.





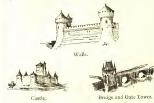
Gable.



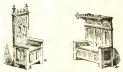
Examples of Bell Towers.

Gothic Architecture is this: the former is always

vertical, i.e. every support, or part supported, is either horizontal or perpendicular. In the latter style we find horizontal, perpendicular, and ob-



lique lines, all tending to support one another. Another difference is that Classic buildings are



Carved Wood Scats.

always symmetrical, all sides correspond, whereas in Gothic ones there is no symmetry whatever,































Examples of Gothic Ornament.

nothing is in order. We find a door on one side and none on the other, pillars differ in design, no two capitals are alike, and all kinds of ornament are employed in the various parts. In Classic buildings the contrary is the rule. Look at the regularity of the Parthenon, and compare it with the irregularity of Westminster.

It must not be thought that round arches prevent a building from being Gothic, as in Germany this is frequently the case. And remember that the chief beauty of Gothic Architecture is that it is honest and true; there are no shams about it, such as we find in the next style, the Renaissance. Nothing is hidden away as too mean. Woodwork was never painted to look like marble, brick was never stuccoed over to look like stone, but yet every part of the building was ornamented. Ornament, for ornament's sake alone, was no more used in Gothic than in Greek Architecture ; the principle of both was ornamental construction, and in both styles the ornaments or decorations were part and parcel of the building-in fact, the building itself ornamented.



## PART II. DIV. IV.

# Renaissance Architecture.

RENAISSANCE Architecture was the outcome of the rage for classic literature which became the



Renaissance Ornament.

fashion in Italy in the sixteenth century. In Italian, the period is called cinquecente, and the artists and writers, the cinque-centesti—terms which may frequently be found in our own books upon Art. This is a little confusing, as literally cinquecento means five hundred; but the thousand (mille), is understood, though not expressed. The term does not mean fifteenth century, but the '500 epoch, short for 1500; just as we might say that steam engines and electric



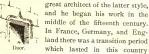
Corbels or Brackets.

Reversed Corbel.

telegraphs were discoveries of the '800 epoch, short for 1800, and meaning the nineteenth century. The period began with Ariosto, 1474-1533, and ended with Tasso, 1544-1595, and included Rucellai and Machiavelli amongst

writers, and Raffaello, Tiziano, and Michel Angelo amongst painters.

In Italy the change from Gothic to Renaissance was rapid. Brunelleschi was the first great architect of the latter style, and he began his work in the



until the middle of the sixteenth century, when the style merged into Tudor and Elizabethan. Of these, there are a great many examples of domestic buildings — Hampton



Court Palace, Hatfield House, and Hardwick. In France the style is called Francis I., and there are a number of fine examples—the Châteaux of Chambord, Blois, and Chénonceaux: and fragments of the Château of Gaillon in the courtyard of the Ecole des Beaux-Arts, in Paris.



Elizabethan Chimney-piece.

In Orleans there are a great many houses, and in Paris, St. Eustache should be mentioned as a

large Church built upon a Gothic plan with Renaissance details. The Louvre was begun about 1544, and is the work of Pierre Lescot and the Italian, Serlio, Jean Goujon being the principal sculptor employed.



Elizabethan Firepiace.

In Germany, Heidelberg Castle is a good specimen of the Transition period; and in Belgium there are a number of town-halls and other municipal buildings.

In Italy, Renaissance buildings partook of a



Portion of the Kaiserhaus, Hildesheim.

more classic character, and they very soon developed into an Italian style; as, for example,







Doors.

St. Peter's, Rome, which was commenced by Bramante, and finished by Michel Angelo, beside two or three other less-known architects. Santo Spirito, Florence, was built by Brunelleschi,



Altar

who died in 1440; and he is also said to have furnished the designs for the Pitti and the Riccardi palaces, but his friend Michelozzo was the builder. Florence abounds in fine palaces, and a peculiar feature is the rusticated masonry employed on

rusticated masonry employed on some of them. Many of its Renaissance churches are remarkable, as, for example, the Annunziata, with its fine dome. In Venice, the

church of the Redentore has a dome, and was built by Palladio; and Santa Maria della Salute is another fine domical church. But one of the grandest buildings of this period in north Italy is the Certosa at Pavia, begun in 1473 by Borgognone. It is executed entirely in marble,



and is adorned most sumptuously with sculptures. In the Renaissance Sculpture Gallery of the Louvre, is a very fine fifteenth-century doorway in Veronese marble, which was brought from the Stanga Palace at Cremona.

In Paris, the Hotel de Ville, built by Boccadoro

in 1549, and the Tuileries, commenced in 1564 by Philibert de L'Orme, were good examples of the high-pitched roofs with dormer windows so common in French Renaissance buildings; unfortunately the latter was so hopelessly destroyed by the Communists that it has lately been pulled down: and the former is almost entirely new. though built as a copy of the old. The Château



Pavilion.

of Fontainebleau, built by Vignola under Francis I., should be studied for its internal decoration as well as for the exterior. Of a later date, in what may be called the Italian style, are the Invalides and the Pantheon. and the east end of the Louvre; these were built under Louis XIV.

In London, Inigo Jones built the Chapel of Whitehall, and Christopher Wren St. Paul's Cathedral and Greenwich Hospital; and most of the smaller churches of the city are by one or the other.

Italy did not influence the Architecture of Holland and Belgium, as Dutch Roof. she did that of France and England, and a totally different style prevailed—a highly



Central Pavilson of the Tuileries.



High-pitched Roof. French.



Town Hall.



Dormer Window.







picturesque one, which is making itself felt here in London at the present time.



House at Middelburg, Holiand.

Space and grandeur were the two elements

aimed at in Renaissance Architecture. In St. Peter's, the nave has but four bays (which is the







Renaissance Dome.

space between each pillar); whereas Milano



Spandril of Dome.



The Lantern.

Cathedral, which is not so long, has twice as



French High-pitched Roof.

many; hence it looks much larger. The dome was much used in the sixteenth and seventeenth cen-

turies, and in France, Mansard re-introduced and modified high-pitched roofs of two or three stories. Some houses in Grosvenor Place have roofs of this kind, and also in the Regent's



Tomb.



Ceiling

Park, Cambridge Gate is a sort of feeble French. The architect evidently had French tastes, for he has 'made his lamp-posts a terribly lame imitation of the beautiful group of the "Graces" by Germain Pilon, in the Louvre.



Garden Terrace.

Just as in Gothic Architecture the great object was to make everything, however mean its use, ornamental, so in Renaissance, the one idea was concealment. In the former, the staircase is often a great feature of the building—witness the Giant's Staircase of the Doge's Palace in Venice and the one leading up to the museum of the Bargello, Florence.



In Renaissance, as in Classic Architecture, symmetry and uniformity were aimed at, and consequently there is a want of picturesqueness, which does not suit our northern atmo-



Bell Tower.



Carved Wood Cabinet.

sphere. St. Paul's is cold and uninteresting—it wants colour; and unfortunately, all the decoration hitherto attempted has been on too minute a scale. The dome should be a blaze of

gold mosaic, with little or no design; for it is impossible for the human eye to penetrate the fog which generally envelops it, in order to discover the subjects of any designs which might be placed there. The mosaics of San Marco, Venice, would be good models to follow, for they are the very essence of simplicity—and yet, what can be more effective?



Estamples of rechaissance Offiament.

But although the later Italian style may not suit our climate, there is a grandeur about it under its native sky. It is, I know, the fashion now amongst a certain clique to despise Renaissance work, even the tombs; just as the same persons class Botticelli and Carpaccio as

painters above Tiziano and Tintoretto. But good Renaissance work, except sculpture and fragments of ornament at South Kensington, cannot be studied in London. The Travellers' Club in Pail Mail is a copy of a fine building, the Pandolfnin Palace at Florence, built by Raffaello; and the Carlton is a copy of the Library of San Marco, Venice, by Sansovino; but there are no original Renaissance buildings—hence the difficulty in forming a fair opinion of the style by those who have not travelled in France or Italy.



Tailpiece from Vignola's "Architecture."

### ARCHITECTURAL EXAMPLES WHICH MAY BE STUDIED IN LONDON

### I. BRITISH MUSEUM.

EGYPTIAN .- Sculptures, sarcophagi, and decorative slabs. Assyrian .- Sculptures, human-faced bulls, decorative slabs, and payements.

INDIAN .- Decorative sculptures from the Buddhist Tope at Amaravati, Southern India.

GREEK .- Doric and Ionic capitals, fragments of columns from the Temple of Diana at Ephesus. The Lycian Tomb. An Ionic Monument from Xanthus. Model of the ruins of the Parthenon. Cast of the eastern pediment of the Temple of Ægina. Sculptures. Roman. - Mosaic pavements.

#### II. LONDON CHURCHES, &C.

NORMAN .- Chapel of the Tower. St. Bartholomew the Great, Smithfield.

TRANSITION .- The round part of the Temple.

EARLY ENGLISH,-The East end of the Temple, The Choir of St. Mary Overy, Southwark (St. Saviour's). The Church and Chapter-house at Westminster,

DECORATED.—The Choir of Westminster Abbey. St. Etheldreda, Ely Place, Hatton Garden (lately restored). St. Stephen's Crypt, Westminster. Austinfriars. The part of Westminster Abbey Cloisters opposite the Chapter-house. St. Ethelburga, Bishopsgate,

PERPENDICULAR .- Henry VII, 's Chapel, Westminster, Great St. Helen's, Bishopsgate. Westminster Hall. Part of the Cloisters of the Abbey (south and west sides).

TUDOR .- Hampton Court Palace. Hatfield House. Holland House.

ITALIAN, -The Reform Club.

ENGLISH RENAISSANCE .- St. Paul's Cathedral.

MODERN CLASSIC .- The Piccadilly Entrance to Hyde Park, MODERN ITALIAN - The Oratory, Brompton.

#### III. SOUTH KENSINGTON MUSEUM.

ROMAN.-Cast of the Trajan Column, full size,

ENGLISH.—Casts of the Forch of the Chapter-house at Rochester, 1340; Porch of Norwich Cathedral, 1325; an angle of the

Chapel of Rosslyn, 1446.

GERMAN.—Cast of the Choir at Hildesheim, eleventh century, Casts of the Tabernacle, or Sacraments-haus, at St. Lorenz, Nuremburg, thirteenth century; the Schreyer Monument, Nuremburg, 1492; the Choir Seats at Ulm (carved wood), 1408; Shrine of St. Sebald, Nuremburg, 1506.

ITALIAN.—Specimens by the great sculptors, Donatello, Mino, and the Della Robbia family. Casts of the Pulpits in the Cathedral and Baptistery at Pisa, by N. Pisano, 1320. Casts of Works of Quercia, Donatello, and Ghiberti; the great Gates at Florence, by Ghiberti. 1430: Pulpit at Santa Croec, Florence; sculptures of Michel Angelo.

SPANISH.—Casts of the great Doorway of Santiago at Compostella, 1188; Cloister of San Juan, Toledo, fifteenth century.

BELGIAN.—Cast of the Chimneypiece of the Palais de Justice, Brugεs, 1529. The Rood-loft, formerly in the Church of St. John, Bois-le-Duc, 1625.

A great deal of carved wood of various periods and schools.

#### IV. CRYSTAL PALACE.

EGWPIAN.—Reproduction of a Temple, with lotus-flower and planh-elet capitals, coloured. Decreative slabs: Ramses II. sitting in his chariot complacently looking at his scribes counting the piles of hands cut off from prisoners, and slain during battle. Sphinx. Caryatider. Sculptures. Model of the Entrance to the Temple at Ipsamboul, Nublis; reale, over-tenth.

GREEK.—Models. The Choragic monument of Lysicrates at Athens. The present condition of the Acropolis, Athens, showing the different united Temples. The restord west front of the Parthen non, quarter of full size. The Temple of Neptune, Paestum, South Italy. The upper part of a Doric column. Casts of various statues, bas-reliefs, &c. Reproduction of a Greek building, coloured.

ROMAN.—Reproduction of a Pompeian house, with the various divisions—atrium, peristylium, &c., all richly painted. Models; the Forum in its present condition; the Pantheon; the Colosseum (restored).

SARACENIC. — Reproduction of the Alhambra at Granada, Spain, coloured and gilt.

ROMANESQUE: NORMAN .- One of the columns of the Church

at Hildesheim, North Germany, A.D. 1022.

Doorway of Kilpeck Church, Hereford, A.D. 1141. Doorway of

Shobdon Church, coloured, and showing style of sculpture; grotesque figures and animals, curious Last Judgment in the tympanum, twelfth century. Irish Crosses from Taam and Louth, 1128-50. The Prior's doorway, Ely, twelfth century.

POINTED, OR GOTHIC: EARLY ENGLISH.—A Cloister formed of details from Guisborough Abbey, Yorkshire, 1290, and Tintern,

1262. Examples of windows, tombs, doorways.

FRENCH.—Reproduction of one of the west doors of Notre Dame, Paris, with the ironwork; full size. Frieze of sculptures round the Choir of Notre Dame, Paris, fourteenth century. Various Tombs and examples of sculptured decoration.

GERMAN. — Gallery, and other portions of the Nuremberg Churches, thirteenth century. Tombs and sculpture.

ITALIAN.—Column and sculpture, the Baptism of our Blessed Lord, from San Marco, Venice: thirteenth century.

DECORATED.—Oriel windows from Lincoln, 1400.

RENAISANCE: ITALIAN—Parts of the facade and details of the scapture of the Certosa, Pavia, 136. Panelling from the Church of the Miracoli, Venice, 1485. Tomb of Ilaria del Carroto, by J. della Quercia, at Lucca, 1485. Frieze from the hospital at Pustoia, school of the Della Robbia family, 1383. Bronze doors by Sansovino of the campanile of Snn Marco, Venice. Michel Angelo's sculptures. Model of St. Peter's, Rome. Deconative Angelo's sculptures. Model of St. Peter's, Rome. Deconative and the Date of Partana, 1590. Doorway of the Palace of the Dorias, Genoa. Sculptures by Verrocchio, Donatello, Mino di Fiesde, &c.

French.—Doors of St. Maclou, Rouen, attributed to Jean Goujon, 1515-72. Fountain of the Château of Gaillon, 1500.



## INDEX.

BACUS, 52 Acanthus, 54 Alhambra, 114 Altar, 44, 45, 84, 126, 164 Alto-relief, 40, 48 Ambo, 85 Amphitheatre, 55, 56 Apse. 83, 120 Aqueduct, 69 Arcade, 111, 119 Arch, Early English, 3 Lancet, 3

Moorish, 3 Pointed, 3, 98, 116 Roman, 2, 60, 69, 70, 98 Romanesque, 97 Saracenic, 110

Architecture, Assyrian, 24 Early Christian, 78 Egyptian, 12

> Gothic, 116 Greek, 45 Indian, 31 Norman, 104

Renaissance, 158 Roman, 59

Romanesque, 92 Saracenic, 110 N

Architecture, Saxon, 98 Architrave, 48 Atlantes, 51 Atrium, 72 Attic. 76 ., Tomb, 40

RALCONIES, 3, 91 Baldachino, 84 Baptistery, 86

Base, Early English, 131 Gothic, 131, 137, 138, 149 Ionic, 50

Moorish, 115 Norman, 107

Tuscan, 74 Basilica, 82, 86 Bas-relief, 41, 49

Bay, 171 Bell Towers, 154, 171 Boss, 74, 133 Bridge, 61, 154, 171

Buttress, 109, 122, 123

AMPANILE, 87 Canopy, 119 Capital, Corinthian, 43, 58 Capital, Doric, 43, 63 Egyptian, 20

" Gothic, 131, 137, 138,

, Ionic, 43, 63 Moorish, 115

,, Persian, 30 ,, Proto-Ionic, 28, 29

Romanesque, 92, 94 Tuscan, 74

Carved wood, 142, 146, 155, 163, 171 Caryatides, 51

Casket, Byzantine, 90 ,, Roman, 74 Castle, 107, 154

Cella, 46 Censer, 95 Centaur, 41 Chapel, 123

Chapel, 123 Châsse, 140 Chêvet, 86, 101 Chimney-piece, 11, 144, 161,

Chinese bronze lions, 36 Cinque-cento, 158 Clerestory, 86 Cloister, 103, 126, 127 Coffer, 11

Coffer, 11 Colonnade, 6° Colosseum, 67 Column of Antoninus, 75

" clustered, 107 " twisted, 152 Confessional, 119 Corbel, 133, 137, 159 Cornice, 47, 48, 153 Credence-table, 128 Crocket, 148 Cruciform church, 120 Crypt, 108

DIPTYCH, 126 Dome, 91, 169

Dome, 91, 169
Door, Egyptian, 19
,, Flamboyant, 118
,, Greek, 44

Door-handle, 147 Door-head, 95, 135, 151, 164 Dormer window, 8, 143 Dripstone, 132

ENTABLATURE, Roman, 64 Egyptian ornament, 19

FINIAL, 145 Fire-dog, 11 Fireplace, 144 Flamboyant door, 118 Font, 108, 121

Frieze, 47

Etruscan vases, 59

GABLE, 5, 153
Gallery, 91
Gargoyle, 102
Gate and drawbridge, 136

Half-Timber houses, Hermes, or Terms, 54

I RONWORK, 148, 153 Italian shell ornament, 2

TAMB, 109 Japanese house, 37 Jerusalem, 112, 113

INTEL, 43, 97 Lotus, 21 Lantern, 169

Mullion, 132

M AINZ Cathedral, 100 Masonry, 61, 165 Metope, 47, 48 Minaret, 110 Miserere seats, 139, 142 Mitre, 139, 124 Mosaic, 73 Mouldings, 137

Mutule, 47 NI ARTHEX, 83, 86 Natural and conventional

treatment, 10 Nave, 86 Niche, 99, 124 Nimbus, 22, 78, 109 Norman church, 105

BELISK, 18 Olive, 21 Openings, 5 Order, 42, 47

Ornament, Egyptian, 5, 19, 21 Gothic, 156

Greek, 53. 58 Laurel-leaf, 21

Norman, 107 Renaissance, 158, 172

Roman, 76

Romanesque, 95, 106 PANTHEON, 62

Parapet, 88, 113, 153

Pavilion, 35, 166, 167 Pediment, 48 Pier, Norman, 107 Pilaster, 94

Pillar, 17, 71

Pinnacle, 8, 130 Piscina, 83

Plans, 4, 42, 46, 60, 63, 72, 73, 83, 86, 96, 127, 132, 149 Porch, 99, 101, 120, 129, 132, 150, 151

Portico, Greek, 5 Pylon, 18 Pyramid, 12, 13, 16

Pyx, 91

R ELIQUARIES, 138, 140 Reredos, 128

Roof, 5, 6, 86, 99, 120, 122, 167, 169 Rood, 146

Rose window, 150

CINDIA'S gateway, 33 Seat, Roman, 65

Carved wood, 155 Shaft, 48, 94

Sphinx, 18, 26, 41 Spires, 130 Stained glass, 138, 140

Stela, 23

Stylobate, 48 Supports, 5, 17

TABERNACLE, 124 Temple, Greek, 39, 42, 75

Term, 54 Terra-cotta, 152 Tomb, 130, 146, 170

## Index.

Tower, 117, 136, 154, 173
Tracery, 135
Transept, 120
Triforium, 85, 121
Triglyph, 47
Triptych, 125
Turret, 9, 154
, , steps, 108, 129
Tympanum, 99, 135

VAULT, 74, 98 Volute, 50

WALL, 4, 44, 61, 104, 155 Windows, 1, 101, 112, 129, 132, 134, 167 Wood earving, 153 Worms Cathedral, 93













